DEPARTMENT

BUSINESS & FINANCE

Modern packaging

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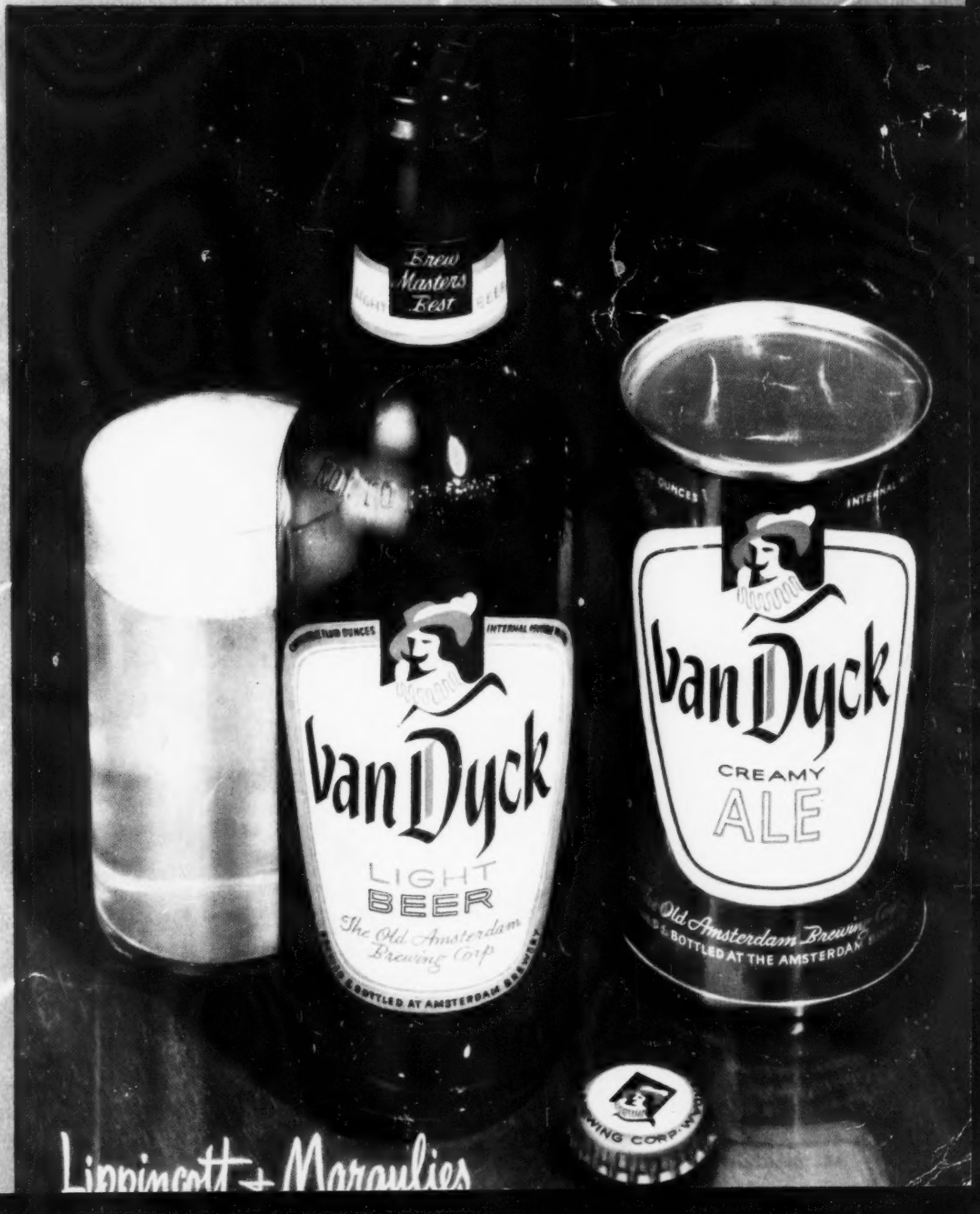

For every duty in the

ember 1948

Lippincott & Margulies

IR v.22 Sept. 1948 - Feb. 1949

NEW!

AN **EMULSION** ADHESIVE

successfully **bonds** moistureproof

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TO
CHIPBOARD
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TO
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OR
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Offices: 270 Madison Avenue, NEW YORK 16; 3641 Washtenaw Ave., CHICAGO 32; 735 Battery Street, SAN FRANCISCO 11; and other principal cities. IN CANADA: Meredith, Simmons & Co., Ltd., Toronto and Montreal. IN ENGLAND: National Adhesives, Ltd., Slough.

National ADHESIVES

CELLU-LOK —A new emulsion adhesive — replaces lacquer type adhesives. CELLU-LOK eliminates fire hazards, bleeding of inks and penetration. It reduces drying time from days — to several hours. NATIONAL technicians, who perfected the first emulsion type adhesive for plain cellophane, have field tested CELLU-LOK on many types of moisture-proof cellophane for more than twelve months. We'd like to have you test it on your materials. We're ready to match our time with yours in working out special applications with laboratory attention to all details.

Tech.

EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE

KNOW-HOW is a product of experience, skill, and study. It is specialized knowledge won by accomplishment; particular learning gained the hard-work way. In the background of every long-established organization is a store of know-how that increases in value with the years ... both to itself and the users of its products. Phoenix Metal Cap Co., Chicago 8 and Brooklyn 18.

Modern packaging

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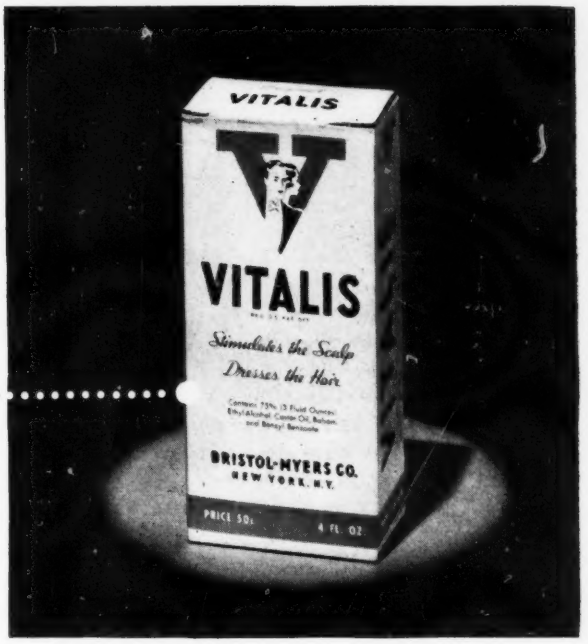
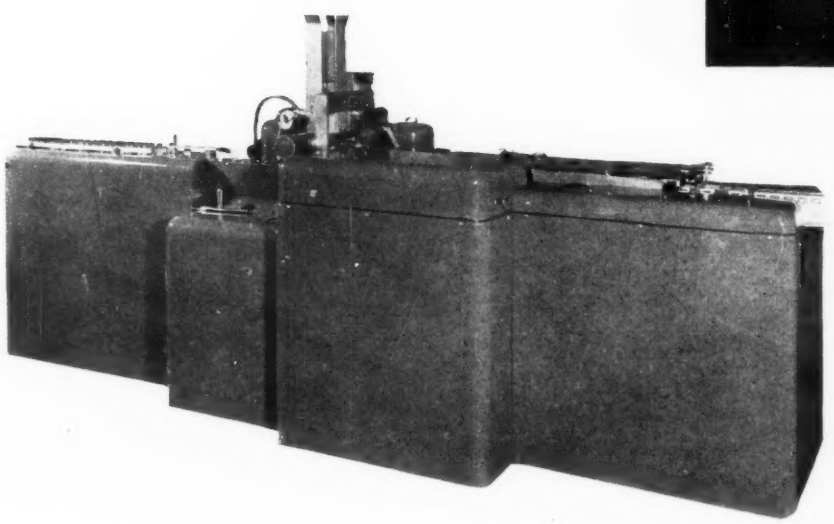
REDINGTON

cartons 150 bottles of Vitalis

per "60-second workout"!





REDINGTON TYPE 23— *the machine that gives Bristol-Myers' VITALIS an efficient "60-second workout", producing 150 4-ounce packages a minute—every minute!*

Back in 1915 Redington built its first machines for Bristol Myers. Those machines proved so effective that this large drug manufacturing firm has since used REDINGTONS for several of their famous products including Sal Hepatica, Mum, Ipana, and of course, Vitalis.

* * *

This REDINGTON Type 23 is built with smoothly functioning features of adjustability that make it a simple matter to rebuild the machine to other size packages whenever you require it. To produce the 4-ounce package of Vitalis, cartons in collapsed form are stacked in the magazine of the REDINGTON. Filled, closed, and labelled bottles of Vitalis are fed into the machine's intake belt, standing upright edge to edge. The REDINGTON takes the bottles from the belt and lays them over into the pockets of the intake conveyor. The machine then feeds carton from magazine, expands it, inserts bottle and closes carton by tucking in the end flaps. 150 bottles per minute are completely packaged.

* * *

It's a good idea to let the skill and experience of REDINGTON engineers—long utilized by such industrial giants as Bristol-Myers—speed up *your* production line. REDINGTON may already have the answer to your own particular problems of saving valuable time and labor costs. Write!

F. B. REDINGTON CO. (Est. 1897) 110-112 S. SANGAMON ST. CHICAGO 7, ILL.

1897 REDINGTON 1948

51 Years of Packaging Leadership

AUTOMATIC CARTONING • WRAPPING • SPECIAL PACKAGING

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Member, Associated Business Papers

THE BOYS IN THE FRONT ROOM

WITH THIS ISSUE MODERN PACKAGING starts its 22nd year. Thinking over what has happened to packaging in that time, one of the veterans among us remarked the other day that to him the most significant change of all was in the attitude of management.

Back in September, 1927, packaging was still, for most front-office executives, something for the boys in the back room to worry about.

Today packaging is universally recognized as one of the vital tools of marketing and the questions it poses are decided at the highest policy levels.

And these decisions are no longer made on impulse. Consumer acceptance of a package design is predetermined by scientific methods. Possible pitfalls in production, cost limitations, the tolerances essential to high-speed output—all such packaging questions are treated with the same careful deliberation that attends any other management decision.

Now there is a growing realization that pre-testing must be followed up with regular checks on the actual handling and display of packages at point of sale.

Many eyes were opened at the recent Packaging Conference in Cleveland when candid color photographs of grocery shelves were flashed on the screen. Some packagers protested, "Our packages are never displayed in that position." But they were!

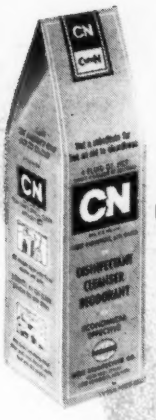
Jim Nash, the designer, predicts that the taking of such unstaged color pictures in various types of stores and trade areas is the coming step in determining the effectiveness of package design and goes so far as to suggest that there ought to be a service set up to provide pictorial sampling on a regular basis.

With such thought being applied to packaging's further development, we look forward to our second 21 years with confidence.

The Editors

Double Glue

Reverse Tuck



Unique Top Glue

Select the carton type you prefer...

Single Glue

Straight Tuck

a JONES CARTONER will load it!

Spot Glue

Airplane

Jones Cartoners are outstanding in their ability to load folding cartons of every type. Day after day, Jones Cartoners are loading millions of cartons — *reverse tuck; airplane; straight tuck; spot, single* or *double glue* — for nationally famous manufacturers in every field.

Regardless of carton type, you do not need special, expensive carton construction. Jones' patented mechanisms for opening, loading, and closing the carton, compensate for normal carton variations. Slight imperfections in scoring or die cutting, gluing, etc., will not cause production stoppages.

With Jones Cartoner versatility, your Sales Department is not limited in selecting carton design, and your Production Department achieves better cartoning, faster, at lower cost. Investigate Jones Cartoning, today. Why not submit your requirements for a comprehensive recommendation?

Remember, ONLY THE Finest CARTONER CAN GIVE YOU THE Lowest CARTONING COST!

R. A. JONES & COMPANY, INC.

P. O. Box 485 CINCINNATI, OHIO

THE MAJORITY OF AMERICA'S CARTONED PRODUCTS ARE JONES CARTONED

You'll sing the praises of our Satin-Finish Shoulders

Even if you're not the type who bursts into song easily...

You'll warble like a tenor with a new contract—the first time you meet an aluminum tube with Sun Tube's unique new "satin-finish" shoulders.

"What shoulders!" you'll croon. "So perfectly formed...so smooth to touch!"

Right! They'll make your product look like a million dollars. Yet they don't cost you a wooden nickel more than other quality aluminum tubes.

So how about taking a look at them? And when you say so, we'll fill your order with the same fast, dependable service Sun Tube's been giving for over 20 years. Just phone or write our home office or nearest representative.

P.S. If you want the finest lead and tin tubes, we can give you those too.

New Satin-Finish Shoulders
A Sun Tube exclusive!

Beautiful Soft-Lustre Finish!
Improves the looks of your product.

No Die Marks or Ridges!

Plus all these Quality Tube Advantages:

- Extra flexible
- Clean, strong, uniform
- Clear reproduction—any design or colors
- Costs no more than other quality tubes

Aluminum Tubes by Sun Tube

Sun Tube Corporation, 181 Long Avenue, Hillside, N. J.

Chicago 3, Ill. . . . . *James L. Coffield, Jr., 105 West Adams St.*
Detroit 2, Mich. . . . . *Joseph P. Giroux, 2970 West Grand Blvd.*
St. Louis 1, Mo. . . . . . *M. P. Yates, Arcade Building*
St. Paul 1, Minn. . . . . *Alexander Seymour, 1411 Pioneer Building*
Cincinnati 8, Ohio . . . . . *Ralph H. Auch, 3449 Custer Road*

You knead color in margarine

...and discover an amazing combination of properties in HYCAR

THIS new pouch-package for oleomargarine deserves the award* it got. It is made from a combination of Hycar and vinyl resin. The idea may lead to a whole new chain of improved packages. With one twist, a housewife discharges a color capsule into the white margarine, quickly kneads it through and soon has the golden spread she likes to serve on the table.

Just think what they're asking of this pouch! Transparency—so a woman can see what she's doing. Flexibility—so the kneading operation can be easy and quick. Great strength—so there's no danger of its breaking open in her hands. And in addition, the package must be tasteless, odorless and appetizing in appearance. If it were not for Hycar American Rubber this package might not have been possible.

This is one outstanding example of the many development ideas that Hycar American Rubber has helped make possible. It suggests ways for making old products better, cheaper or both—for lowering processing costs—for creating markets for brand new products. For instance, Hycar can now be put into formulations with Geon polyvinyl materials—and you do away forever with migrating plasticizers!

We make no finished products from Hycar, but we are glad to supply information and to help with any special problem. Write B. F. Goodrich Chemical Company, Dept. S-5 Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.

*Delrich E-Z Color Pak (Cudahy) Packaging Award, Modern Plastics competition. Visten Film by Visking. Package by Shellmar.

Hycar
Reg. U.S. Pat. Off.
American Rubber

B. F. Goodrich Chemical Company
A DIVISION OF THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • KRISTON thermosetting resins • GOOD-RITE chemicals

A MILPRINT PACKAGE

ALWAYS TAKES THE CAKE!

No matter how good a product may be . . . it needs the right package to compete on the shelf for consumer attention. And whether it's cake mix, cocoanut, or cookies—Packages By Milprint have that "come hither" appeal that fills shopping bags and rings up sales.

Milprint packaging engineers are trained in modern merchandising methods. The creative and technical men behind them have a vast experience in packaging—and they specialize in getting your product *off the shelf* . . . and into the kitchen with self-selling package designs. Why not investigate Milprint's famous packaging service today!

Packaging Headquarters to American Industry

PACKAGES BY MILPRINT

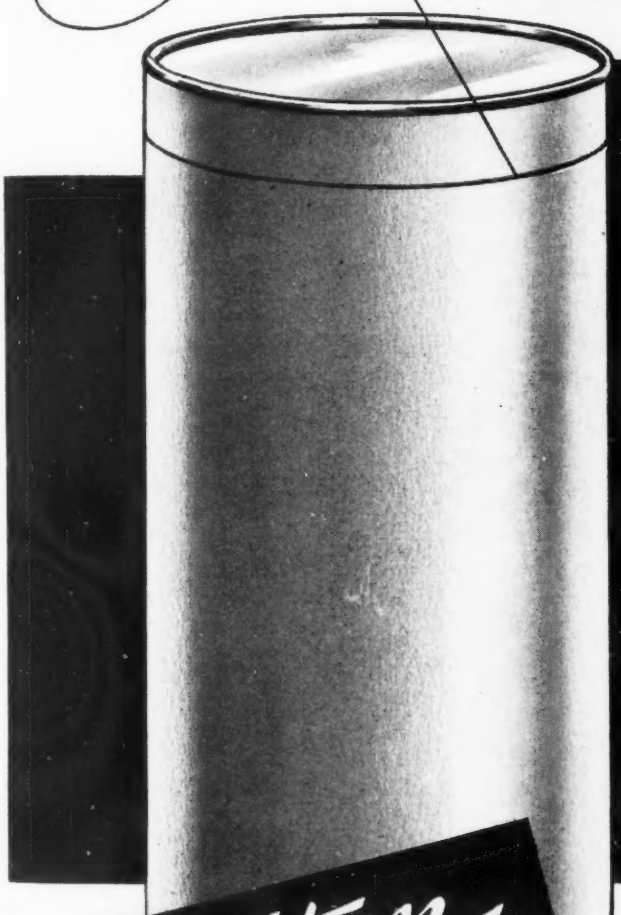
MILPRINT Inc. SALES OFFICES IN ALL PRINCIPAL CITIES

PACKAGING CONVERTERS • PRINTERS • LITHOGRAPHERS

plants at | MILWAUKEE, PHILADELPHIA, LOS ANGELES, CHRISTIANA, PA.
SAN FRANCISCO, TUCSON, VANCOUVER, WASHINGTON, STOUGHTON, WIS.

general offices: MILWAUKEE, WISCONSIN MILLS AT DE PERE, WISCONSIN

Works like Magic... Sefton's STRING OPENING CAN



Excellent Example

of how SEFTON is Tooled for your job! A can that has everything! SEFTON'S string-opening can stays closed when it should . . . it's factory-sealed and tamper-proof . . . and opens in a jiffy with a slight pull of the string! Its full opening makes it easy to fill and it can be reclosed again simply.

Sefton FIBRE CAN COMPANY

ST. LOUIS . . . . . NEW ORLEANS

DIVISION OF CONTAINER CORP. OF AMERICA

The String-Opening Can is but ***one*** *of Sefton's Many Fibre Cans:*

- SPIRAL AND CONVOLUTE
- ROUND AND IRREGULAR SHAPES
- PAPER AND METAL ENDS
- TUBES AND CANS
- ALL STANDARD OPENINGS AND RECLOSURES

WRITE OR CALL *Sefton* FOR DETAILS

LET SEFTON SOLVE YOUR PACKAGING PROBLEMS!

DISTRICT OFFICES: • Los Angeles • Salt Lake City • Denver • Dallas • Chicago • Cincinnati • New Orleans • Boston • Detroit • Kansas City • St. Paul Omaha • New York • Cleveland • Oklahoma City • Pittsburgh • Memphis • Nashville • Seattle • Portland

Simmons STOCK-GRO solves tough packaging problem...

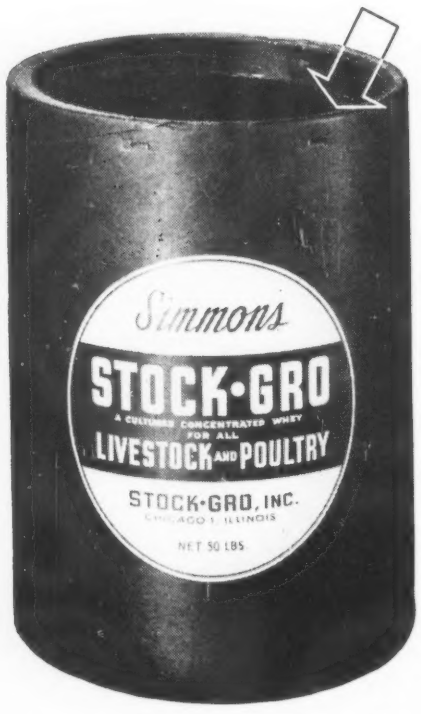
VisQueen*

FILM ELIMINATES COSTLY STEEL DRUMS!

Suppose you had a product like this. It's a highly nutritious milk by-product animal feed containing 66% solids, 38% milk sugar and 12% lactic acid. You want to ship it in husky 50 lb. batches—and you're looking for a better, cheaper way to package it.

THIS fits into THIS!

O. K. You try everything. Nothing pans out. Then—you try a bag made of VISQUEEN* film—inserted in a strong paper container. It looks good.



So you give it the "third degree". Is it moisture-tight? You hang up a water-filled bag of VISQUEEN film—let it hang for months and months—without the slightest leakage! Is it strong enough to stand the slam-bang risks of shipping? 50 lb. bags filled with Simmons Stock-Gro are repeatedly dropped from 10-ft. heights. The paper outer wrap breaks once in a while, but the VISQUEEN film holds firm without breaking—and no loss of product!

Tests prove VISQUEEN film is pure, tasteless, odorless—important to you because hogs, turkeys and chicks will eat Simmons Stock-Gro the so-called "Free Choice" way—right out of the container. You find it's flexible, easy to seal. You're impressed with the savings in cost per package. And that's *all* you need to know—your problem is solved!

Every packaging problem is admittedly different. But no matter how different or difficult yours may be—there's a strong chance that VISQUEEN *film can help you lick it. For speedy cooperation—write today!*

PURE
TASTELESS
ODORLESS

VisQueen* FILM

A *PRODUCT OF THE* VISKING CORPORATION
PRESTON DIVISION, P.O. BOX 1410 C, TERRE HAUTE, INDIANA

*T. M. The Visking Corporation

RADIANT BEAUTY

that attracts sales . . .

lustrous foil cartons

by UNITED

United's foil cartons reflect light . . . call quick attention to themselves on retail shelves and counters . . . flash a strongly tempting invitation to buy the products they contain. These gleaming cartons of lustrous foil can speed *your* sales by attracting impulse buyers with their radiant beauty. And they help to keep consumers coming back for your product again and again—through sheer attractiveness, easy brand identification, and convenience. Our one-control, pulp-to-package manufacturing is your guarantee of top quality and dependable supply. Have United engineers show you how our laminated foil cartons can increase your profits. Write United today. No obligation.

UNITED BOARD & CARTON *Corporation*

285 MADISON AVENUE, NEW YORK 17, N. Y.

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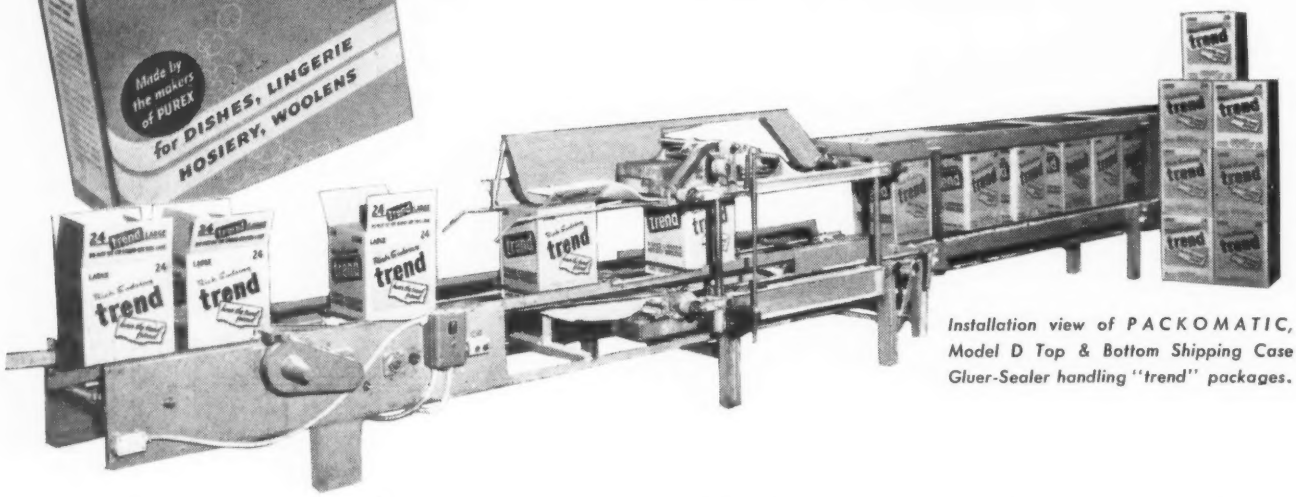
FROM PULP TO PACKAGE

PRESERVE THE SA* OF YOUR PACKAGES with PACKOMATIC



Installation view of PACKOMATIC, Model D Top & Bottom Shipping Case Gluer-Sealer handling "trend" packages.

* Shelf Appeal is the "SA" of packaged products—that certain something that draws the eye of the consumer to the package's purchase-persuading personality on the dealers' shelf.

Convinced of the importance of shelf appeal of its package, Purex Corporation, Ltd., turned to PACKOMATIC for packaging machinery with which to speed its new detergent "trend" to market with its "buy me" look intact.

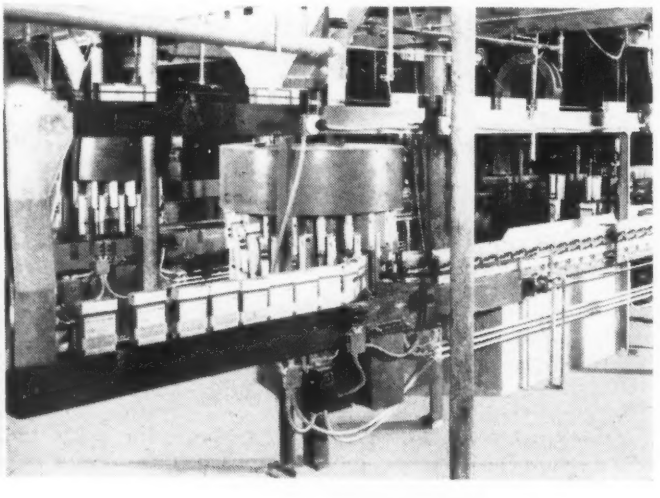
To glue and seal its corrugated shipping cases safely and securely against the rigors of modern transportation, Purex uses a PACKOMATIC Model D shipping case gluing and compression sealing machine.

Whether you contemplate a new packaged product or the modernizing of your packaging line, PACKOMATIC'S experience with such outstanding package goods manufacturers as Purex can help you. Your inquiry incurs no obligation to buy. J. L. Ferguson Company, Route 52 at Republic Avenue, Joliet, Illinois.

TYPICAL PACKOMATIC EQUIPMENT

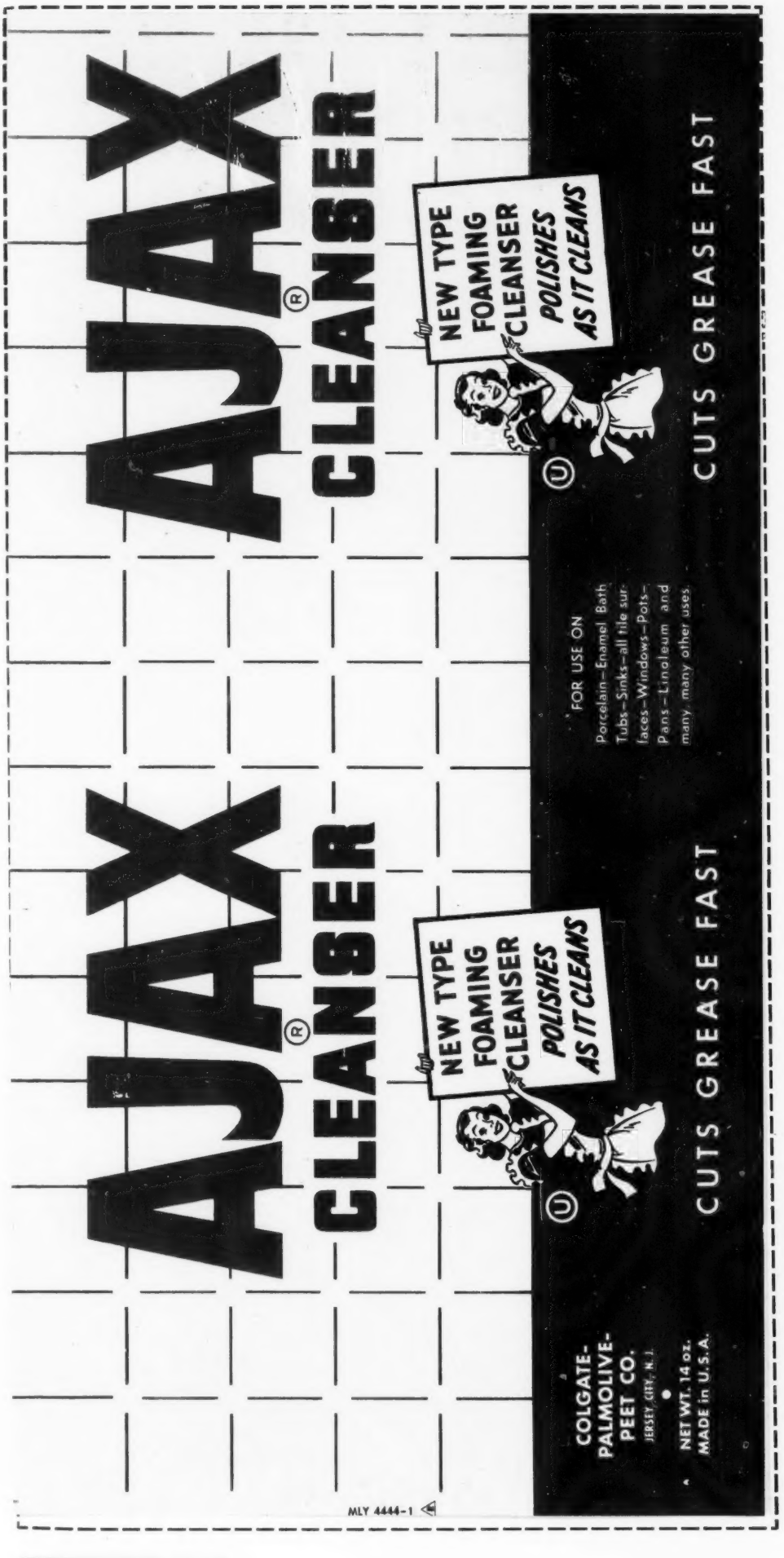
Paper Shipping Case Sealers
Case Imprinters
Case Dating and Coding Devices
Carton Gluers and Sealers
Carton Making Machines
Automatic Carton Formers & Feeders
Auger Packers and Weighers
Net Weight Scales
Paper Can Tube Cutters, Gluers
Shrinkers, Cappers & Setup Conveyors.

Purex uses PACKOMATIC'S telescoping volumetric fillers (right) synchronized with PACKOMATIC'S top and bottom carton sealing machines and automatic carton feed.



PACKOMATIC
T.M. REG. U.S. PAT. OFF.
PACKAGING MACHINERY
J.L. FERGUSON CO. JOLIET, ILL.

Chicago • New York • Boston • Philadelphia
Baltimore • Cleveland • Denver • New Orleans
San Francisco • Los Angeles • Seattle • Portland
Tampa • Dallas



Brilliance of transparent colors combined with the brilliance of Reynolds Aluminum Foil makes labels like this self-selling.
Let us show you how to make your product stand out on the crowded counters and shelves of modern self-service stores.

Reynolds Metals Company
Richmond 19, Va.

REYNOLDS METALS

Reynolds Aluminum

Courtesy of Colgate-Palmolive-Peet Co., Jersey City, N. J.

Tupperware

In use in fine old American home where gracious living and sturdiness of character meet in the American manner.

Tupperware

Canister Sets, Refrigerator Bowls, Cups, Saucers, Pitcher, Creamer, Sugar Bowl, Wonder Bowl with cover and Tumblers, fashioned from the "material of the future" — unbreakable, chip-proof are

by

Tupper Corporation

Silver, napery, cutlery, glassware etc., by others.

The Colonel's Lady and Judy O'Grady

To lift your Premium deal out of the commonplace into the exceptionally-accepted, consider these TUPPERWARE Wonder Bowls (next to the cutlery in the dining room setting).

Fashioned of Tupper "material of the future", the edges of a Tupperware Wonder Bowl may be pressed to form a pitcher-like spout for pouring — it will return to its original form immediately and graciously. In five pastel translucent tones and crystal. It's a premium eminently suited to associate with your own good merchandise.

When Rudyard Kipling wrote poetry about the opposite sex, he didn't go into ecstacies about their eyes; their hair; their pearly teeth—indeed not. He waxed critical, cynical, analytical — and sometimes there was just a touch of the bawdy about him.

But even the ladies, who professed to dislike him, knew what he meant. And so, when he penned the lines . . . "for the Colonels' Lady and Judy O'Grady are sisters under their skins", they knew what he was talking about. He wrote those lines about the women of the British Army. Here in America it takes on an even broader meaning. For it is a part of the great "American Way" that young Mrs. Joe, the wife of G.I. Joe may and does, aspire to the same things that make gracious living for the lady who is the wife of he, who was G.I. Joe's Colonel . . . she'll get them too and she'll know how to use them.

So, the same Wonder Bowls that are seen as details of the table settings in the homes "up on the hill" will, when proferred as the premium part of another purchase, most profitably stimulate the buying of Joe's wife.

TUPPER CORPORATION (TUPPER) FARNUMSVILLE MASS.

Dept. A. Modern Packaging.

COPYRIGHT 1948

You buy the best in closure design technique as well as top product protection when you specify O-I metal closures.

TOPS FOR SELLING!

• Give your product double advertising impact with brightly colored Owens-Illinois *lithographed* metal closures.

In retailers' displays, a colorful lithographed closure flags consumer eyes—stimulates profitable impulse (extra!) sales.

And in the home, an O-I lithographed closure impresses your name and trade mark on your customers' minds every time your product is used—helps build *repeat* sales.

How to get full value from this display space? Let our expert design engineers help you.

Call on us. We can fill your order in any quantity NOW.

CLOSURE DIVISION — OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

The Essentials of Paper Bag Making

. . . have been on our minds for 56 years

It's been our job to incorporate these essentials, pasting, cutting and forming into fast, continuous-action machines. We've spared no cost of research and experimentation that points to a more effective machine at a lower price. Our engineers are constantly on the look-out for ways to increase the variety of bags each machine will produce. As new bag making materials appear we design specialized machines to handle them. We manufacture over 200 types of bag machines to produce the following styles of bags:

Cellophane *and* **Glassine** *bags and tubes for cigars, foods, textile products . . .* **Duplex Bags** *for coffee, sugar, chemicals . . .* **Specialty Bags** *flat and square (gussetted) for millinery, notions, candy . . .* **Sacks** *for flour, sugar, shopping bags.* **Heavy Duty** *multiwall bags for cement, fertilizer, potatoes . . .* **Dry Cleaner** *bags . . .* **Grocery Bags**—*self opening square and square (gussetted) styles.*

POTDEVIN

MACHINE CO.

1244-38th Street

Brooklyn 18, New York

Write Us About Your Converting Problems.

A BIG ATTRACTION . . . commands attention.

Increase the attraction of your package.

Give it distinction that compels interest!

CHICAGO CARTON COMPANY

CARTONS WITH HIGHER "EYE-Q" RATINGS

CHICAGO CARTON COMPANY

4200 SOUTH CRAWFORD AVENUE • CHICAGO 32, ILLINOIS

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Well in Hand!

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THE·WHEATENA·CORPORATION
WHEATENAVILLE
RAHWAY·NEW·JERSEY

7 April 1948

Robert Gair Company, Inc.
155 East 44th Street
New York 17, New York

Gentlemen:

Many visitors to Wheatena here at Rahway, have remarked that we have the most complete automatic packaging operation in the world.

Whether or not this is an over-statement, we do know that our superhuman machines are entirely dependent on the precision with which the cartons are made.

Fortunately, the Robert Gair organization recognized this fact years ago and have made every effort to preserve the precision of their product and thus help us keep our machines operating in a highly satisfactory manner.

Very truly yours,

THE WHEATENA CORPORATION

By Arthur R. Wendell Jr.

President

ARW:lb

Wheatena's high-speed packaging machinery, like many others, has a personality of its own . . . a characteristic that demands the uniform precision of a "custom made" carton . . . just the kind of precision cartons that embody the experience, the "know how" and the infinite care of the Robert Gair organization.

You will understand why our cartons are GAIRanteed when you read the Wheatena letter, which states that the precision of Robert Gair cartons has helped materially to keep Wheatena's packaging machines operating in a highly satisfactory manner for many years.

Our technical staff is at your service when you contemplate an improvement in your packaging facilities or when you plan the ideal carton for your new product.

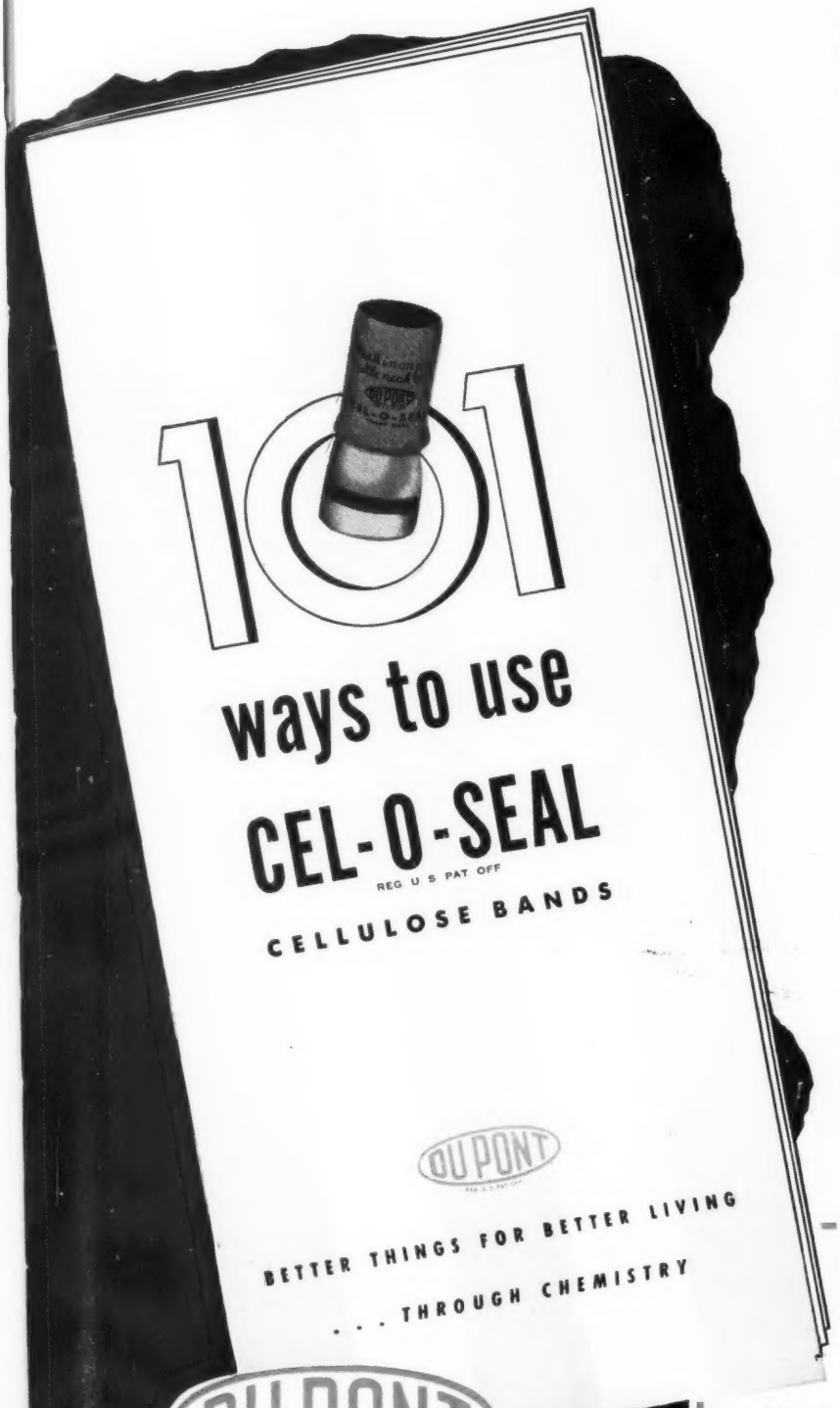
Write for booklet on Precision Packaging

ROBERT GAIR COMPANY, INC.
NEW YORK • TORONTO

PAPERBOARD • FOLDING CARTONS • SHIPPING CONTAINERS

PROFITABLE TIPS

on perfecting your package



NEW FREE BOOKLET contains 16 illustrated color pages filled with practical, idea-provoking applications of Du Pont "Cel-O-Seal" Cellulose Bands.

You'll profit from reading this booklet if you have a specific closure problem . . . if you want to add merchandising zest to your package . . . or if you simply want to keep up with the latest developments in packaging.

In this informative booklet you'll find example after example of how a wide range of packagers have profited by the all-round advantage of Du Pont "Cel-O-Seal." You'll be amazed at what the protective and merchandising features of "Cel-O-Seal" have done for such types of packages as glass, rubber, metal, plastic, ceramic, and fibreboard.

Here are some of the "Cel-O-Seal" applications described:

Solving primary closure problems
Holding merchandising attachments
Topping off re-use containers
Preventing "shopwear"
Serving as a complete package
Displaying sales messages
Insuring genuineness
Safeguarding vacuum-packed products

To get the whole story on the merchandising and protective helps provided by "Cel-O-Seal," send for your copy today! E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Del.

DU PONT
"CEL-O-SEAL"
CELLULOSE BANDS

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
"Cel-O-Seal" Section
Wilmington 98, Delaware

Please send me ( ) copies of your new booklet, "*101 Ways to Use 'Cel-O-Seal'*"

Your name_____

Company_____

Street_____

City_____ Zone_____ State_____

A quartet of cans that sing quality

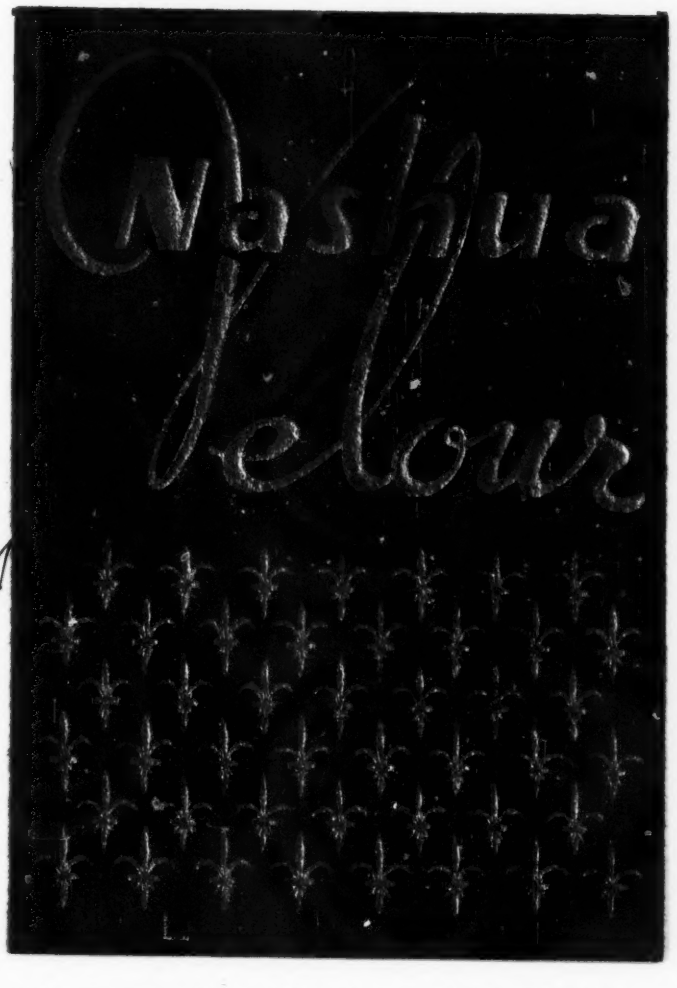
There's really something special about these Continental-made tobacco cans. Their bodies are strong and tightly seamed. Their lids close with an authoritative snap. Their labels are definitely brighter, sharper, more attractive. Continental lithographers, who are perfectionists when it comes to getting every letter and curlicue perfect, have really done a job on these four brands. If you are now making plans for the future, why not get in touch with a Continental representative! We'll welcome a chance to talk things over with you.

CONTINENTAL CAN COMPANY

100 EAST 42ND STREET, NEW YORK 17, N. Y.

You Can Sell

and



The gold stamping is the added touch that makes this luxurious material an ace sales-builder for packages. Nashua velour has the looks and feel of rich cloth. Its use will place your package in a quality class by itself. Available in 16 stock colors in rayon velour and in 13 colors in cotton velour. Sizes 26½" to 53½". Write for samples.

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Mm Mm ...

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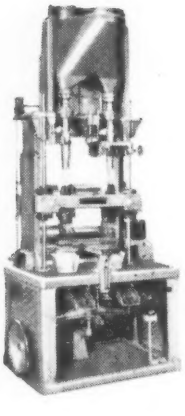


Packaged on STOKESWRAP for *Attraction, Appeal and Protection*

Stokeswrap is more than a machine, more than a package—it's a merchandising plan that can be used to give *your* product terrific sales impact.

The Stokeswrap Machine can be used for many other products, using other heat-sealing film—Cellophane, Pliofilm, Foil, etc.—from roll, with various types of feeding mechanisms to suit different products.

There is an S & S machine for packaging your product rapidly and at low cost. Call Stokes & Smith Co. for engineering consultation at any time . . . there's no obligation.

STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

Frankford Philadelphia 24, Pa.

"Better machines for better packages"

Out of this World

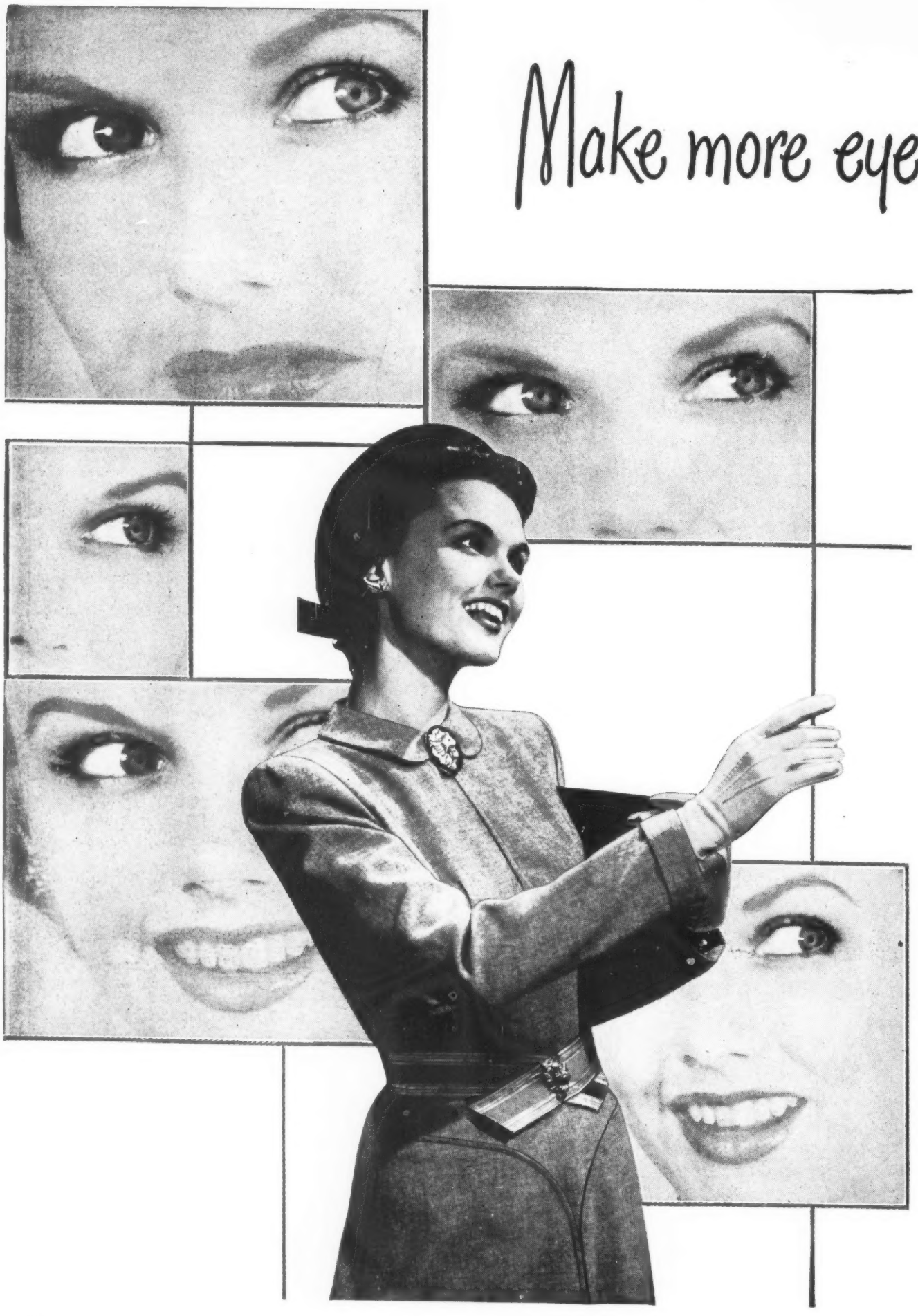
...BUT DOWN TO EARTH

If the package is right . . . if it stops the shopper with an arresting appeal . . . then it stimulates a buying mood. And to stimulate a buying mood . . . especially in women who demand an out-of-this-world effect, plus a practical down-to-earth quality . . . Warnercraft scores with Tekwood (R).

Made of laminated Birch Veneer and Sulfate Kraft sheets, Tekwood (R) packages combine the unusual in design with practical re-use possibilities that fascinate shoppers. Investigate Warnercraft and Warnercraft-Tekwood (R) . . . today!

Write for illustrated packaging handbook.

Makers of set-up and folding boxes of all types, transparent acetate containers, hand made specialties, counter displays and dispensers.
Main Office and Factory: 325 Lafayette Street, Bridgeport 1, Conn. • New York Sales Office: 200 Madison Avenue, New York 16, N. Y.


Make more eyes

reach for your product...
in cartons of Coated Lithwite*

GIVE YOUR PRODUCT THE EYE-CATCHING ADVANTAGE SO MANY FAMOUS PRODUCTS ARE GETTING IN CARTONS OF COATED LITHWITE. IT'S THE QUALITY CLAY-COATED BOARD... PLUS!

You won't find feet propped on desks in many sales departments, today. Coats are off. Sleeves rolled up. Every possible way to get a break over competition is being explored.

Cartons of *Coated* Lithwite can give you one. They can give you a competitive, eye-catching break where it *counts most*, too—right on the dealer's shelf and counter.

For this revolutionary clay-coated board (the clay-coating is filmed on with mechanical uniformity in one straight-through operation) is unusually white and bright. Its surface is chalk-free, velvet-smooth. Colors come up brilliantly on cartons and packers of Coated Lithwite. Product pictures reproduce with a sharp, "reach-for-me" realism. Gardner-Richardson's Precision-Engineered craftsmanship means better filling machine performance, too . . . less waste . . . fewer jammers and leakers . . . less down time.

Worth investigating, isn't it? Write. We'll send a representative with complete facts.

WANT MORE SALES DESIGNED INTO YOUR PACKAGE?

Let us show you what a face-lifting job can do to an old package design. Or ask us to design a brand-new package with greater display value, shelf appeal and utility. Or maybe you have something new that's never been packaged before. Gardner-Richardson's team of designers, artists and craftsmen will be glad to tackle your problem on a strictly "show-you" basis, without obligation. Write, today.

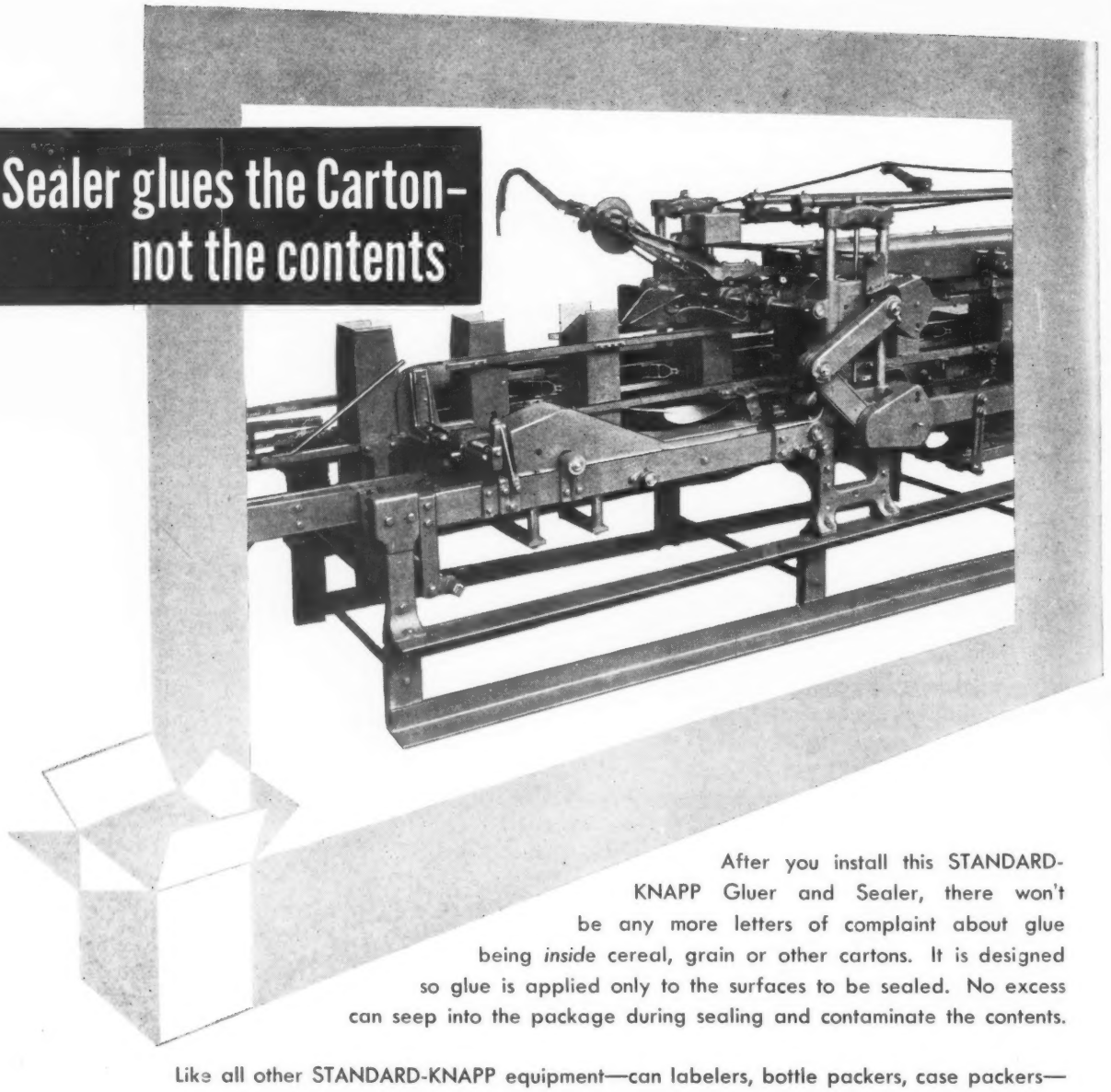
THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

* Reg.U.S.Pat.Off.

Sales Representatives in Boston, Chicago, Cleveland, Detroit, New York, Philadelphia, Pittsburgh, St. Louis

This Sealer glues the Carton– not the contents



After you install this STANDARD-KNAPP Gluer and Sealer, there won't be any more letters of complaint about glue being *inside* cereal, grain or other cartons. It is designed so glue is applied only to the surfaces to be sealed. No excess can seep into the package during sealing and contaminate the contents.

Like all other STANDARD-KNAPP equipment—can labelers, bottle packers, case packers—the Standard-Knapp Gluer and Sealer can be easily connected to your present conveyor system. Its heavy-duty construction assures dependable, uninterrupted service with a minimum of maintenance. All parts are accessible for easy cleaning.

Our packaging engineers will be glad to show you how the STANDARD-KNAPP Gluer and Sealer and other STANDARD-KNAPP equipment can add to the economy and efficiency of your plant operation.

Standard-Knapp Corporation

MANUFACTURERS OF CASE SEALING, CASE PACKAGING AND CAN LABELING MACHINES
FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

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North Hamilton, ONTARIO, CANADA

145 Public Square
CLEVELAND 14, OHIO

1412 N. W. 14th Avenue
PORTLAND 5, OREGON

Orlando
FLORIDA

300 Seventh Sreet
SAN FRANCISCO 3, CALIF.

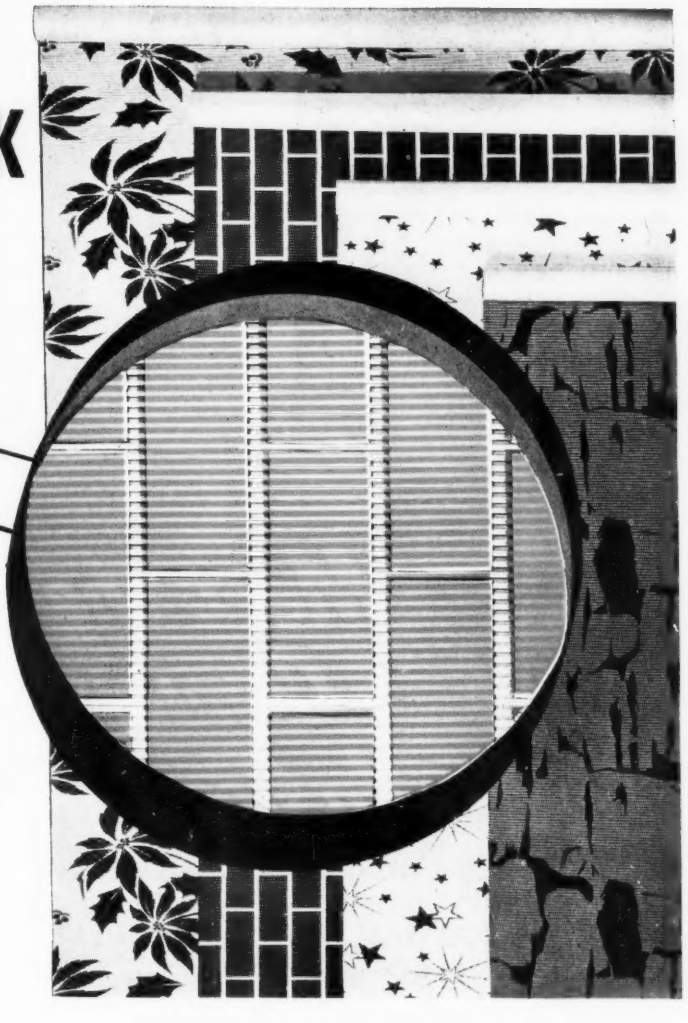
3615 Olive Street
ST. LOUIS 1, MO.

Windsor House, Victoria St.
LONDON S. W. 1, ENG.

For Uniformity and Quality

use HYDROTONE INK

It Doesn't Smudge! Photo enlargement shows how Hydrotone Inks impressions stay sharp and clean despite rough treatment during corrugating and embossing operations.



There's an easy explanation for the vibrant colors of these corrugated display papers designed for use in store windows and shop displays. All were printed by The Reyburn Manufacturing Company, Philadelphia, with BBD Hydrotone Inks . . . the new water-soluble aniline inks that print sharp and clean at speeds of more than 500 feet per minute without wash-up.

Moreover, as the close-up illustration shows, Hydrotone Inks don't smudge or run as a result of corrugating or embossing operations.

You can get these fireproof, smudgeproof, water soluble inks in a full range of beautiful colors. Write now for samples, prices and detailed technical information.

Display Papers by The Reyburn Mfg. Co.
These eye-compelling creations were designed, printed and corrugated by REYBURN. Vivid, clear colors were achieved with BBD's new *water-soluble* Hydrotone Inks.

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Manton Brothers
Elizabeth Street, Toronto, Canada
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Export Division
McLaurin-Jones Co.
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New York 7, N. Y.

Associate Manufacturing Plants
Bensing Brothers & Deeney, Inc., in Mass.
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Largest Manufacturers of Aniline Ink in U. S. A.

Bensing Bros. & Deeney

HOME OFFICE AND PLANT 401 N. BROAD STREET, PHILADELPHIA 8, PA.

YOU'LL BE SEEING THEM, USING THEM, PROFITING FROM THEM!

Now BAKELITE Polyethylene Plastic brings a new concept of performance to packaging. This amazing plastic material is inert, tasteless, odorless, non-toxic and extremely resistant to chemicals, including strong acids, alkalies, alcohols, grease and moisture.

Because of such properties, Celluplastic Corporation, Newark, N. J., has recently introduced these pharmaceutical vials made with BAKELITE Polyethylene . . . the coming thing for applications of this type. They dramatically point up the great usefulness of Polyethylene for sensitive products like deodorants, toilet water, creamy cosmetics, now packaged in new, more attractive ways.

These are only some of the reasons why BAKELITE Polyethylene will play a big part in the future of packaging.

Completely flexible, even at a temperature of minus 94° F., it makes entirely new types of seamless containers possible. Light, almost completely unbreakable, it saves shipping costs. It comes in a wide range of colors, either deep tones or delicate pastels. Shatter-proof and long-wearing, it offers a nearly ideal durability.

BAKELITE Polyethylene, as well as VINYLITE Brand Plastics, are sure to influence your packaging techniques. Get acquainted with them now. Write to Department EA-55 for complete data on forms, properties and applications.

TRADE-MARKS

BAKELITE

POLYETHYLENE

BAKELITE CORPORATION, *Unit of Union Carbide and Carbon Corporation* UCC 30 East 42nd Street, New York 17, N. Y.

To Keep Moisture In	—Or Out
To Keep Grease On	—Or Off
To Preserve High Polish	—Or Prevent Shine
To Maintain Sales Volume	—Or Increase It
To Filter Out Impurities	—Or Recover Them
To Lower Cost	—Or Protect It
	The Job Might Be Done
	With Paper
	From
	MATTHIAS PAPER CORP. 165 W. BERKS ST., PHILADELPHIA 22, PA.

QUALITY
TUBES HELP
BUILD REPEAT
BUSINESS

TURNER TUBES

REPRESENTATIVES

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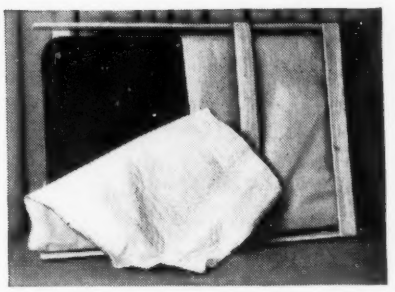
J. A. Bauer
521 Broadway
Cincinnati 2, Ohio

Keiffer & Son
2127 Aberdeen Avenue
St. Louis 17, Mo.

J. S. TURNER WHITE METAL COMPANY

NEW BRUNSWICK . . . . NEW JERSEY

Air-flown flowers arrive garden-fresh. That's because they're insulated with protective KIMPAK. Insulation Packaging Photo courtesy of United Wholesale Florists of Calif., Inc.



Surface Protection – Table top. Photo Courtesy Drexel Furniture Co.

*Kimpak** Float Packaging

cradles your products . . . protects your profits

Don't let shipping damage claims eat away your profits! Cushion every product you package with soft, strong KIMPAK* creped wadding. For KIMPAK provides low-cost protection from shipping room to journey's end.

It is amazingly versatile. Clean and grit-free, KIMPAK safeguards a wide variety of items . . . from delicate glass to hardy machine parts. Keeps its resiliency under continous shock and vibration. And light in weight, compact, it adds little bulk to shipments.

KIMPAK is popular with packaging personnel. It is pleasant to handle, clean, and takes up a minimum of storage space. What's more, fleecy-white KIMPAK enhances the sales appeal of any product – it's that good looking.

You may choose from a number of thicknesses, backed or unbacked, liquid-repellent or liquid-absorbent – sheets, rolls, or pads. In fact, there is a specification of reliable KIMPAK to meet every requirement of the Four Basic Methods of Interior Packaging . . . Surface Protection, Flotation Packaging, Blocking and Bracing, and Absorbent Packaging.

Flotation Packaging – Dental Model. Photo Courtesy Kramer Dental Studio.

Free booklet on better packaging methods. Call or write your local distributor for the illustrated KIMPAK book on how to improve your present packaging. He is listed in the Classified Directory. If you prefer, simply mail this coupon.

KIMBERLY-CLARK CORPORATION
Creped Wadding Division, Neenah, Wis.

Please send me the free KIMPAK booklet that tells how I may better my packaging methods.
MP-948

Name .....

Firm .....

Type of Business .....

Address .....

City, Zone, State .....

Kimpak
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES
A PRODUCT OF Kimberly Clark RESEARCH
CREPED WADDING

*T. M. Reg. U. S. & Can. Pat. Off.

Matchless Moments with Oxford Paper by Tony Barlow

THIS printer is running an offset job on Oxford Maineflex Enamel—and with a paper like that, you can take it easy.

In fact, all Oxford papers lighten the problem of turning out a good job. That goes for offset, gravure or letterpress—and Oxford makes many grades of coated and uncoated papers which assure easier handling and better on-the-press performance.

Oxford Paper Merchants will be glad to back up this statement with samples which show the results others are getting—when you want the finest in quality and hard-hitting "selling in print."

You'll find an Oxford Merchant as near as your telephone, in 48 key cities, coast to coast.

Included in Oxford's line of quality printing and label papers are: Polar Superfine Enamel, Maineflex Enamel Offset, Maineflex C1S Litho, Mainefold Enamel, White Seal Enamel, Engravatone Coated, Carfax English Finish, Super and Antique, Aquaset Offset and Duplex Label.

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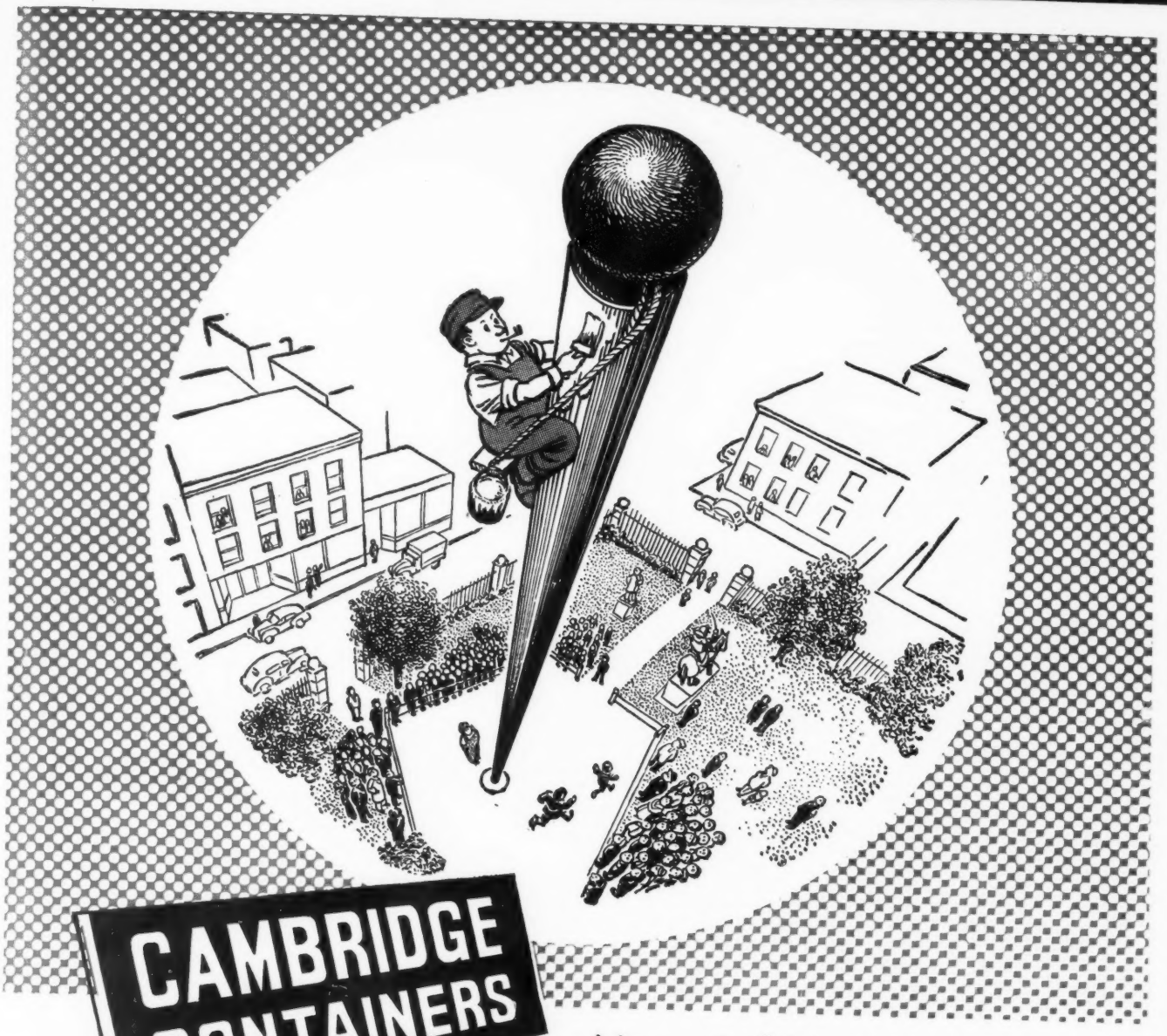

CAMBRIDGE CONTAINERS

attract Attention, too!

CAMBRIDGE CONTAINERS are designed and built to attract attention . . . create interest . . . stimulate the desire to buy . . . and MAKE SALES.

CAMBRIDGE PAPER BOX COMPANY

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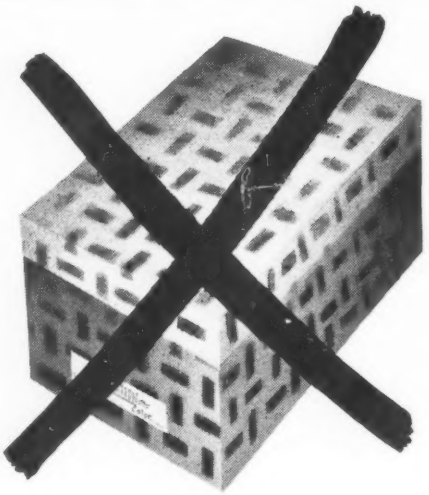
Rectangular & Round Boxes · Plastics · Labels & Allied Products

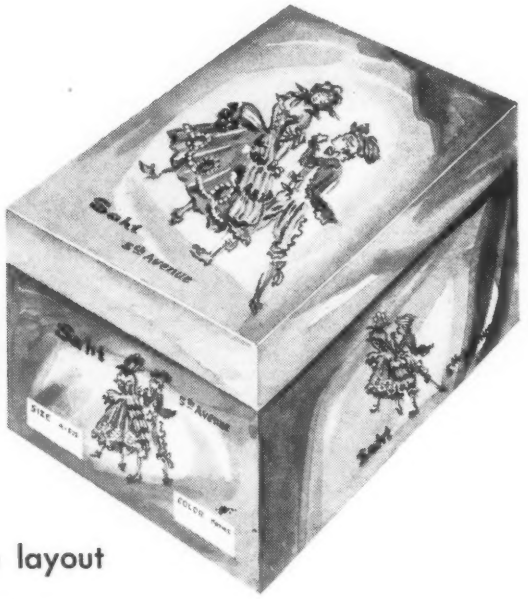


NOT THIS

Don't be content with a continuous over-all trade mark design wrap for your package — plus the extra expense of a pasted end label

BUT THIS!

Dress up your package with a Decotone Printed Wrap with your trade mark or design spotted where you want it and with end label an integral part of the design



DECOTONE Printed Wraps are complete layout wraps ready for your wrapping machine or in rolls marked for electric-eye cut-off. Produced by gravure in 1 to 4 colors, they offer almost limitless effects and are particularly adapted to large runs of one design and size where the most gratifying economies are obtained.

Our design department is at your command to develop a Decotone Printed Wrap that will enhance your package. Write today!

DECOTONE PRODUCTS

DIVISION

Fitchburg Paper Company

PACKAGING PAPERS *Converted Papers* SPECIALTY PAPERS

FITCHBURG, MASS.

KIDDER POINTERS

No. 19.

Observations of trends and indications in packaging... noted by the manufacturers of Kidder "3 Point" Presses, Kidder Press Company, Inc., Dover, N. H.

University of Tennessee has made a study of frozen food purchases by three income groups. Contains much valuable information, charts, statistics, etc. Available in the University of Tennessee Record, Vol. 24, Number 1.

The relation between printing processes and packaging is the subject of a paper by E. H. Balkema reported in the June '48 issue of Modern Packaging. Paper tells which process is best suited to achieve effects desired in package.

Frozen foods and meats packaged in cardboard with cellophane windows for visibility of the product are preferred by more than 47 per cent of New York area homemakers queried in a recent survey conducted by a well-known New York city color and design engineer. In regard to color, the survey revealed that red and blue, green and white, and green and red were the most popular combinations.

The sales value and market acceptance value of a carefully planned label is brought out in a paper by M. C. Pollock of C. A. Swanson Sons, Omaha. Reported in Modern Packaging, June 1948.

The National Association of Frozen Food Packers has decided to back an industry-wide informative labeling program for frozen foods. Informative labeling is expected to be an important element in the frozen food industry's broadened program of public relations, aimed at stimulating both trade and consumer interest in frozen food lines.

"Proper packaging for efficient shipping demands that traffic managers, materials handling managers and packaging engineers should cooperate in the design," says E. J. Purruzi of Squibb. He has a very worthwhile article on Integrating Traffic and Materials Handling in the April 1948 issue of Packing and Shipping.

The advantages of moisture-set inks for packaging are said to be freedom from odor, heat sealing and rapid drying according to an article in Modern Packaging, June 1948.

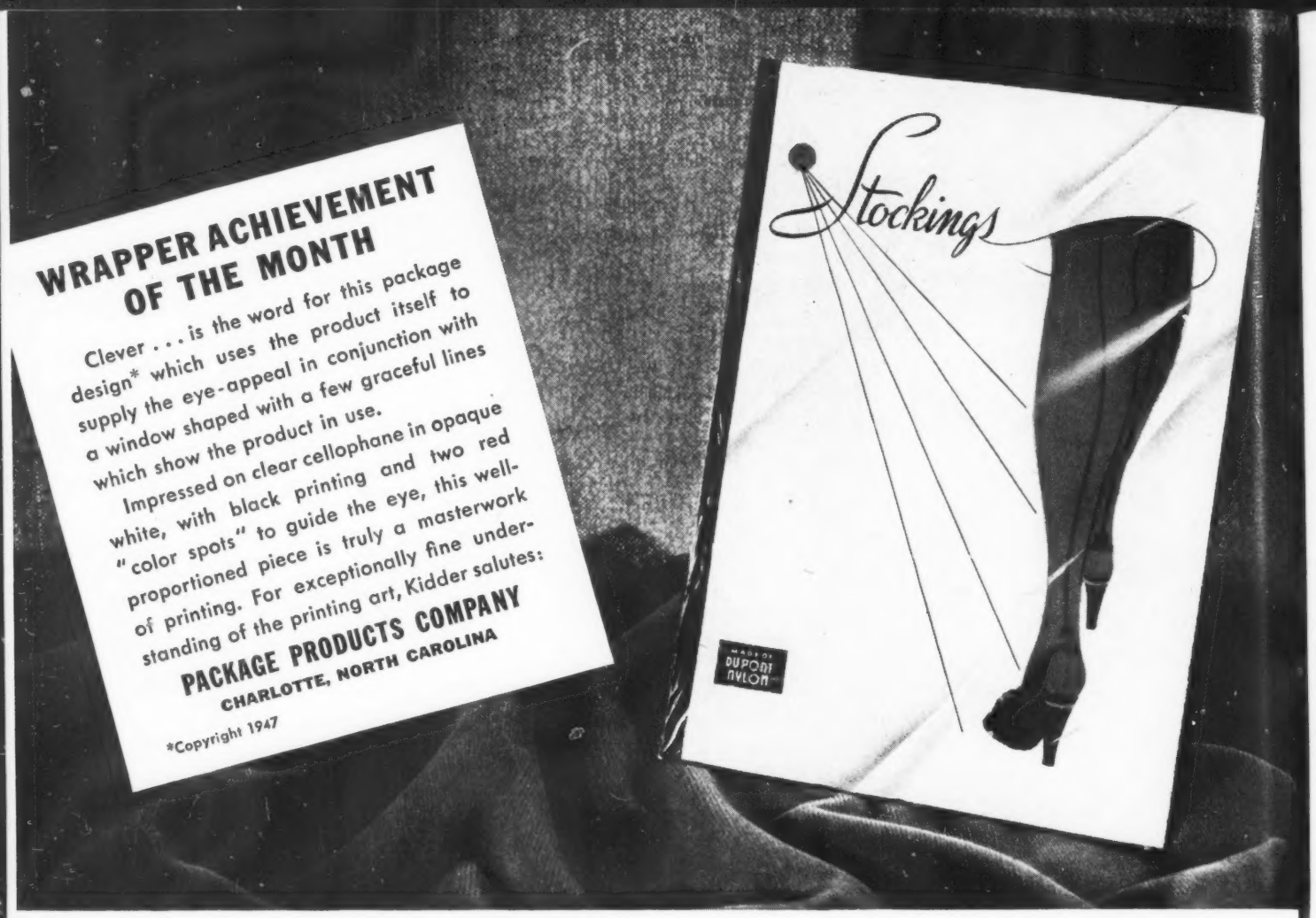
Instant Postum changed its packaging recently and boosted sales 26%. Read about it in the June 1948 issue of "The Glass Packer".

In a recent paper, Mr. Lee R. Forker, Container Committee, Nat'l Assn. Purchasing Agents says: "Costs of packaging have gone up 30%-150% over prewar . . . wax for sealing will continue in short supply . . . textile containers are in better supply and may drop in price . . . metal containers will vary with steel output . . . aluminum and lead types of tubes should be adequate in supply . . . wood, glass and paper are spotty."

Paper bags, which won't disintegrate even when soaking wet, are designed for the pre-packaging of fresh fruits and vegetables in take-home quantities, either at the store or at the shipping point. Some of them have "windows" of cellophane, and of cotton mesh through which their contents may be seen.

Advantages and disadvantages of pre-packing meats at the retail level are told by Walter Shafer, vice president of Armour & Co. in the June 1948 issue of "Meat".

A new series of all-hydrocarbon thermoplastic resinous copolymers provide material for containers that will keep fruits and vegetables fresh for six months or more. The exceptional properties of these "S-Polyner" packages is due to their resistance to moisture and gas penetration. Ripe grapefruit, oranges and lemons were kept for more than six months under ordinary atmospheric conditions at temperatures ranging from 70 to 95 degrees F. and relative humidities from 50 to 100 per cent. The fruits retained a high percentage of their vitamin content and displayed the attractions of freshly picked fruits. Fresh vegetables and dried fruits gave comparable results.


WRAPPER ACHIEVEMENT OF THE MONTH
Clever . . . is the word for this package design* which uses the product itself to supply the eye-appeal in conjunction with a window shaped with a few graceful lines which show the product in use.
Impressed on clear cellophane in opaque white, with black printing and two red "color spots" to guide the eye, this well-proportioned piece is truly a masterwork of printing. For exceptionally fine understanding of the printing art, Kidder salutes:
PACKAGE PRODUCTS COMPANY
CHARLOTTE, NORTH CAROLINA
*Copyright 1947
Stockings
MADE OF DUPONT NYLON

PUTTING SALESMANSHIP IN YOUR PRINTING

In these days of increasing competition, printing must not merely be "acceptable" . . . it must help carry the selling load by attracting the buyer's eye . . . be a sales message in itself. There is no effective substitute for clear, well-formed printing, accurately impressed on the paper.

Kidder Presses execute superb printing because they are designed to combine the three essentials of good printing: *Control over the paper, proper distribution of ink* and *accuracy of the impression.*

These things are yours in:

The two new Kidder designs of MULTI-COLOR INTERCHANGEABLE CYLINDER OIL INK PRESSES . . . for metal or rubber plates.

KIDDER ANILINE-TYPE PRESSES — the famous Aniliners — for high-speed — high-quality runs . . . including the narrow "Cello-Printer", primarily for Cellophane, and the new "Print-Master" Aniliner offering the ultimate in aniline press speed and quality.

CONTROL OVER THE PAPER

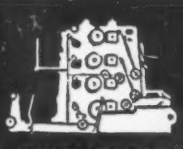
PROPER DISTRIBUTION OF INK

ACCURACY OF THE IMPRESSION

KIDDER
THREE POINT
PRESS

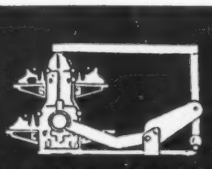
KIDDER

Manufacturer of "3 Point" Presses—so-called because they fulfill the three major requirements for perfect printing.



MULTI-COLOR LETTER PRESSES

for waxed paper, box wrappers, etc., rewound or sheet-delivered — up to 72 inches in width.

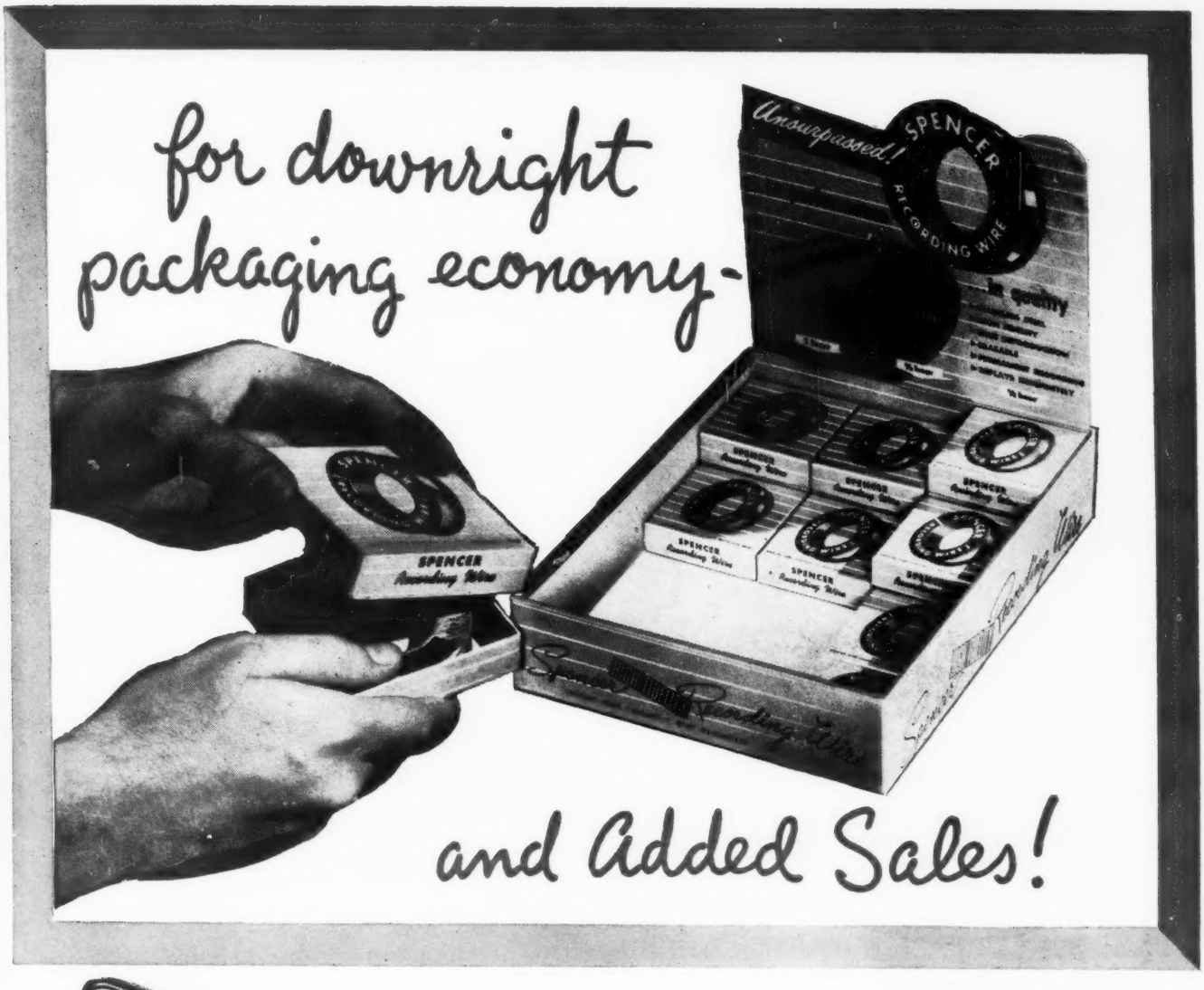


"ANILINER" and "CELLOPRINTER" MULTI-COLOR PRESSES

with gravure units — for decorative papers, cellophane, glassine, etc., — up to 65 inches in width.

SLITTERS AND REWINDERS

for paper mills, finishing rooms, and converting plants — up to 115 inches in width.

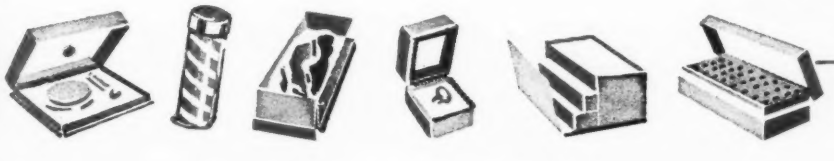


A paper clip is a handy gadget for holding things together. For instance, you might clip together your complete packaging costs from original product handling right through to counter display and retail wrapping. Then compare these costs with the custom built economies you would have if your container was a set-up paper box.

You'd find the set-up box is custom built for ease of packaging, product protection, greater display value, better point-of-sale preference — and frequently needs no secondary retail wrapping. Add the costs—or the savings—and you'll find for general economy no other package better fits your sales and packaging program.

Ask your nearest Set-up Box manufacturer to show you his ideas on improving your product sales through better — more economical — packaging.

FOR INFORMATION OR SERVICE • CONSULT
YOUR NEAREST SET-UP BOX MANUFACTURER



NATIONAL PAPER BOX MANUFACTURERS Association

AND COOPERATING SUPPLIERS

Liberty Trust Building, Philadelphia, Penn.

BETTER

FASTER

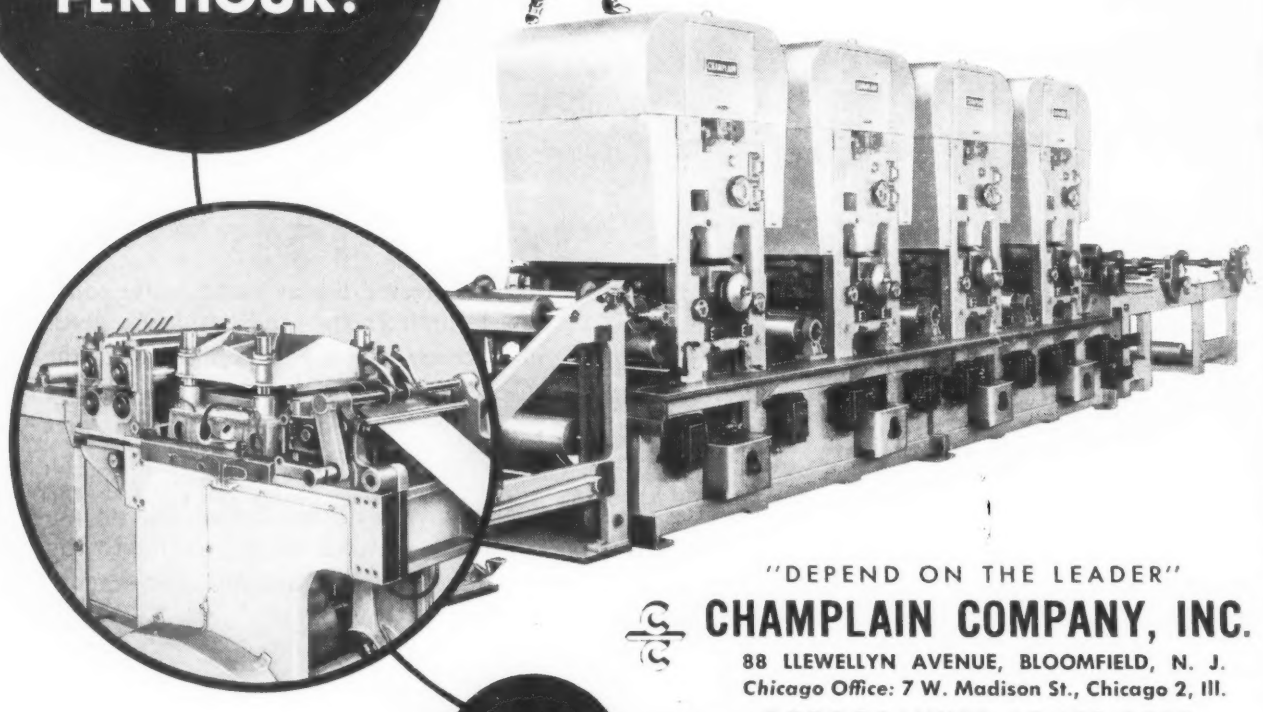
MORE PROFITABLE PRINTING

75,000 FOLDING CARTON BLANKS PER HOUR!

That's right! 75,000 printed, die cut, scored and stripped folding carton blanks per hour. Compare that production speed with the speed of your present facilities.

Compare too, the economy and flexibility you get with the Champlain Carton Press. Using low cost, chase type, steel rule and furniture dies it will die cut *any* size between minimum-maximum range. Die changeover is quick and easy. Unlock the chase . . . slide it free . . . put in new chase . . . lock . . . adjust feed length . . . start printing. Stock can be tinted, coated or varnished in the same operation and because it's roll fed, it means paper savings. Champlain's carton presses work in line with from one to six rotary printing units — rotogravure, aniline or letterpress.

Send samples of your production to us — let Champlain show you how to do the job—better, faster, more profitably.



"DEPEND ON THE LEADER"

CHAMPLAIN COMPANY, INC.

88 LLEWELLYN AVENUE, BLOOMFIELD, N. J.

Chicago Office: 7 W. Madison St., Chicago 2, Ill.

ROTOGRAVURE AT ITS BEST

Here are some advantages of CHAMPLAIN ROTOGRAVURE

NO PRESS WASHUP

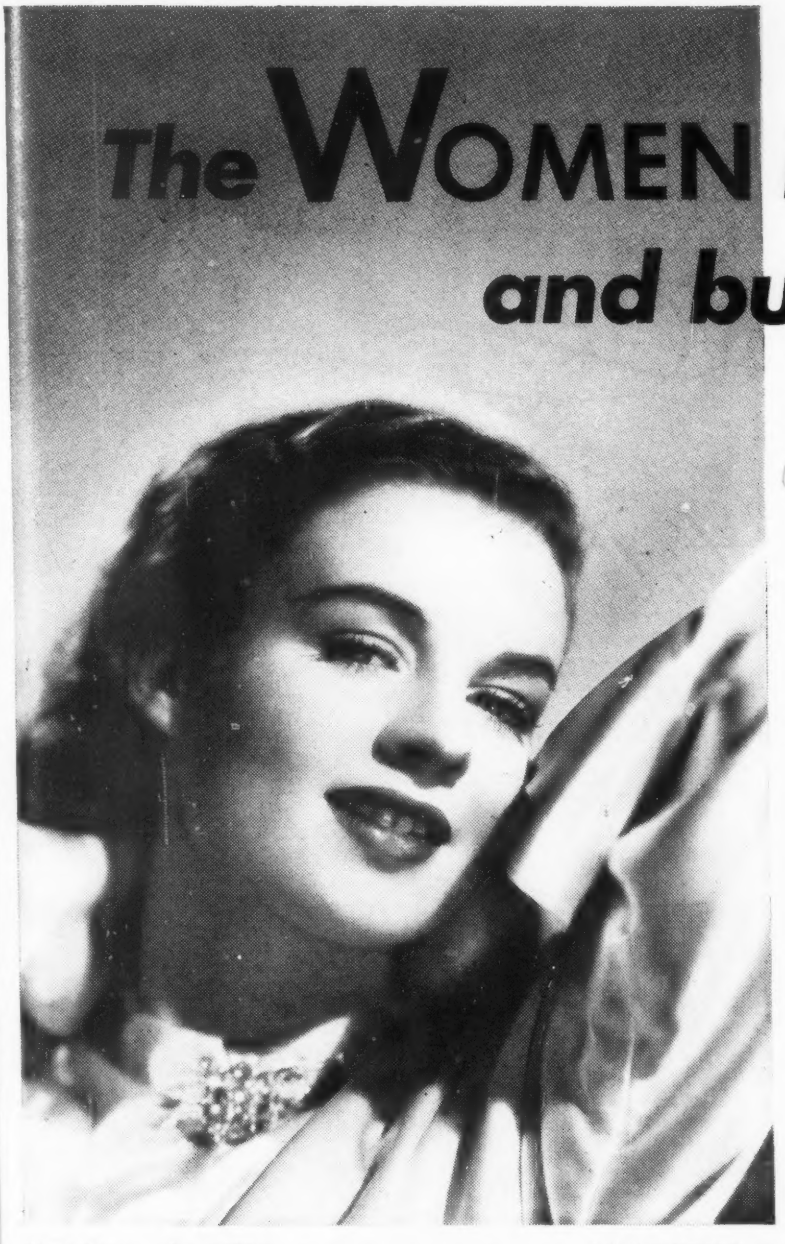
INSTANT DRYING INK

NO MAKEREADY

MULTICOLOR — 1 PASS THROUGH PRESS

ELECTRONIC OR PUSH BUTTON REGISTER CONTROL

The WOMEN in your life and business...



HELENA CARTER, now appearing in "LARCENY," . . . A UNIVERSAL-INTERNATIONAL PICTURE.

• *As the motion picture industry capitalizes on good looks, keen merchandisers capitalize on the selling power of an attractive package.*

There are Sixty-Five Million of them if your product is sold at retail. *They are the 65 million women who buy ¾ of* ALL *goods sold at retail.* They have *buying habits* that it will pay any manufacturer *in this woman's market* to know about.

They do not think, behave or *buy* like men.

For example: Surveys show (and experience of leading retail organizations confirms it) they make ¾ of their decisions as to *what brand* to buy at the point-of-sale—*on impulse!*

There—in the stores—where they react to what they SEE—your package is a decisive sales factor. Women "go for" the *better looking, packaged* products.

HOW TO MAKE *YOUR* PACKAGE SELL!

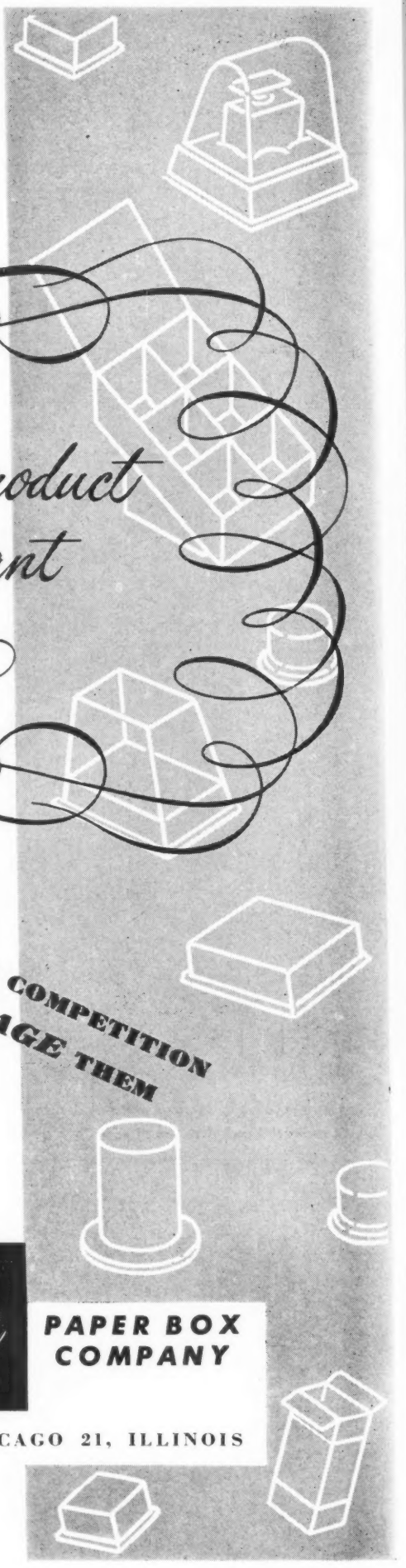
Let Ritchie help you develop (at low unit cost) a package that meets the increasing challenge of self-service retailing. A practical, production-planned package that instantly identifies, fully protects and conveniently dispenses your product. Easy to fill or pack—to handle—to stack or display. An attractive, eye-stopping, *SELLING* package.

Never the Power

W.C. Ritchie and COMPANY
8840 Baltimore Avenue • Chicago 17
★ SET-UP PAPER BOXES
★ FIBRE CANS
★ TRANSPARENT PACKAGES
TRADE MARK

Underestimate of the Package!

NEW YORK • DETROIT • LOS ANGELES • ST LOUIS • CLEVELAND • CHARLOTTE • JACKSONVILLE



The better the product the more important the package

YOU CAN OUTSELL THE COMPETITION WHEN YOU OUTPACKAGE THEM

*SPECIALIZED PACKAGING

TRANSPARENT PACKAGING

UNUSUAL MERCHANDISE COUNTER DISPLAYS

CREATIVE FOLDING CARTONS

INTRIGUING SET-UP BOXES

MOULDED ACETATE DISPLAYS IN COLOR

Acme **PAPER BOX COMPANY**

STATE AT SIXTIETH STREET • CHICAGO 21, ILLINOIS

Designers
Creators
Manufacturers

PACKAGING BY *Traver*
MEANS

PROTECTION
PLUS **SALES APPEAL**

Brach's luscious chocolate covered cherries reach the consumer in perfect condition in Traver's Loxtite partitions. Each piece of candy rides safely in style in its individual compartment. Why not make sure that your product reaches market in the same perfect condition by investigating the possibilities of Traver's Loxtite partions for your particular package. Loxtite partitions are ideal for all types of external and internal packaging of fragile articles.

Sales Offices in Chicago, New York, Philadelphia, Pittsburgh, Cleveland, Kansas City, St. Louis, Dallas, Detroit, Oakland

Write or wire for information.

Traver CORPORATION

TRAVER CORPORATION, 366 W. ONTARIO ST., CHICAGO 10, ILLINOIS

CONVERTERS AND PRINTERS OF CELLOPHANE, PLASTICS, ACETATES, FOIL AND GLASSINE

for HOUR after HOUR of continuous operation— the SHUMANN BAG MACHINE

Profit by our years of experience. Built, tested, and proved by a commercial bag manufacturer, the SHUMANN Bag Machine is practically fool-proof. It is fully automatic and ruggedly constructed for steady production. Operation is continuous—without lost time due to breakdowns.

The SHUMANN Bag Machine makes bags with the "Crimp Seal" bottom for absolute moisture-proof and sift-proof protection. Handles all types of heat sealing materials. Makes either single or duplex bags, flat or gusset type, in any size from 1½" x 1½" to 12" x 16".

For perfectly sealed bags, with printing perfectly registered, and with lowest unit cost, investigate the SHUMANN Bag Machine. We will gladly arrange a demonstration to prove to you its many advantages. Write today for full information.

SHUMANN
EQUIPMENT COMPANY
Everything in Packaging

1206 E. Carson Street Pittsburgh 3, Pa.

TASTELESS

West Carrollton GENUINE VEGETABLE Parchment

The flavor protection provided by West Carrollton Genuine Vegetable Parchment is TASTELESS, ODORLESS, GREASE-RESISTANT and INSOLUBLE. This parchment is STRONG, too, and *keeps* its strength, wet or dry. It is the ideal wrapper for such moist foods as butter, shortening, ice cream, cheese, oleomargarine, poultry, meat, fish—and many others. Complete facilities in our own plant for printing one or more attractive colors (in special inks).

WEST CARROLLTON PARCHMENT COMPANY • WEST CARROLLTON, OHIO

PINEAPPLE PACKAGING PROBLEM... Dobeckmun solves it!

The idea was to put the juicy, picked-ripe freshness of Dole Pineapples into someone's dessert dish . . . months later and oceans away from where they grow.

Quick freeze them? Sure. But preserve flavor, maintain moisture content, protect against damage, stimulate sales . . . these were packaging problems.

The Hawaiian Pineapple Co. uses a Dobeckmun Tritect bag for the inner wrap. Tritect is two moisture-proof cellophane sheets laminated with a layer of finest wax. It is moisture-vapor-proof, preserves flavor and moisture content. Its toughness protects against damage.

Dobeckmun prints the five color, consumer-catching, outer cellophane wrapper. Its vivid colors and sharp register provide package impact . . . stimulate sales . . . out-sparkle surrounding merchandise.

Ask us for suggestions about your packaging problems. There are many Dobeckmun films and foils, and hundreds of Dobeckmun ideas at your disposal.

The Dobeckmun Company, Cleveland 1, O.
West Coast Division, Berkeley 2, California.

DOBECKMUN

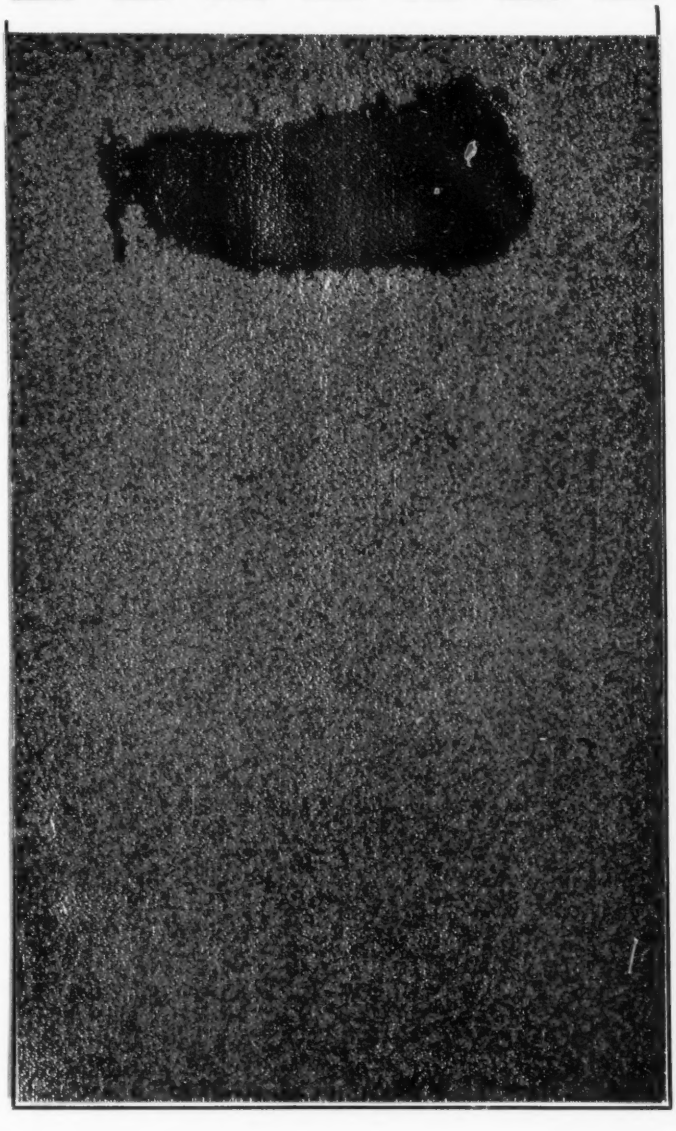
Sell-selling packages in processed films and foils

Branches in Atlanta, Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, Portland, St. Louis, St. Paul and Seattle. Representatives everywhere.

ACMEGLO*

in twelve shimmering colors . . . all the beauty of KID at little more than the cost of paper

Write now for free sample book



LOOK AGAIN at the gleaming gold sample. Now picture this same exquisite material in pink, turquoise, royal blue, emerald green or dragon red . . . or in other metallic finishes such as silver, bronze, gunmetal and antique gold.

Turn the sample over. Note that the foil is backed with an unusually high-strength cotton base. It's ideal for adhering to boxboard and other package foundations. And for packaging applications which require stitching—as in sewn pouches and bags— ACMEGLO is also obtainable on other base materials.

You can get prompt delivery of either cloth or paper-backed ACMEGLO in any of its twelve colors, in sheets or in rolls.

Write for your free ACMEGLO Swatch Book today. Address your request to Acme Backing Corporation, 43 Meadow Street, Brooklyn, New York.

*Reg. U. S. Pat. Off.

ABC Acme Backing Corp.

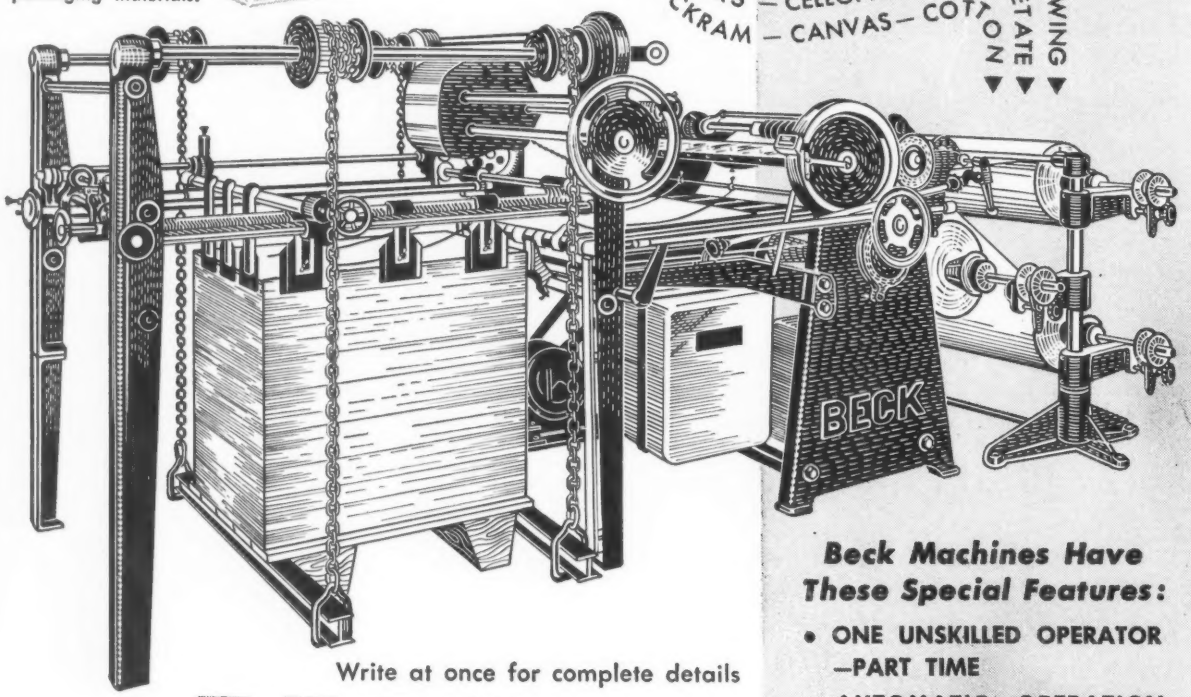
• CELLOPHANE TO LIGHTWEIGHT BOARD •

▶ KRAFT — GLASSINE — WAXED — VELOUR — TISSUES — FOIL LAMINATES — PHOTO-SENSITIZED — BLUEPRINT — TRACING — DRAWING
▶ TRACING LINEN — TAG STOCK — SAFETY PAPER — WATERMARKED PAPER — LABELS — BREAD WRAPPERS — CELLOPHANE — ACETATE
▶ VINYLITE — POLYSTYRENE — VUEPAK — PLIOFILM — KODAPAK — PLASTIC LAMINATES — LEATHERETTE — BUCKRAM — CANVAS — COTTON

DE-CURLS

CUTS COUNTS STACKS 'EM A MILE HIGH!

Designed for fine cutting of all types of paper and packaging materials.



Write at once for complete details

CHARLES BECK MACHINE CORPORATION

Automatic Roll Sheet Cutter

13th & NOBLE STS. PHILA. 8, PA.

BECK MACHINES

The Accepted Standard

Versatile

SHEET CUTTERS

USED THE WORLD OVER

Beck Machines Have These Special Features:

- ONE UNSKILLED OPERATOR —PART TIME
- AUTOMATIC OPERATION INCREASES PRODUCTION
- RIGHT SIZE SHEET READILY AVAILABLE
- NO CUTTING CHARGE
- CLEAN SHEAR-TYPE CUT
- * ELECTRIC-EYE ASSURES REGISTER CONTROL

*One of many additional features offered in diversified line of Beck Cutters

• CELLOPHANE TO LIGHTWEIGHT BOARD

• CELLOPHANE TO LIGHTWEIGHT BOARD • CELLOPHANE TO LIGHTWEIGHT BOARD •

ON A MERRY-GO-'ROUND?

ACE
Packaging that **ATTRACTS** *is the Packaging that* **SELLS**

It's fun at a circus, carnival or county fair—but mighty serious in cold-blooded business! Too often "saddle-calluses" form on business riding the merry-go-'round.

In packaging, it's easy to "hop a ride" if you're misguided. Folding paper packaging demands level-headed conduct—not just the old pattern of "round and 'round." The best way to set a straight packaging course is to work with those who *know how!*

• We can be helpful to you!

ACE CARTON CORPORATION

FOLDING PAPER BOXES • FOLDING DISPLAY CONTAINERS

5800 WEST 51st STREET, CHICAGO 38, ILL. • TELEPHONE PORTSMOUTH 1111

"IN PACKAGING QUALITY CIGARETTES...

ADHESIVES PLAY A KING-SIZE ROLE"

"Our job is to see that all our high quality cigarettes, including our King-size FIVE STARS, live up to the slogan of our MARVELS and keep right on being 'worth crowing about.' " That's what Mr. J. T. Clemence, Factory Manager of Stephano Bros., Philadelphia, Pa. writes. He goes on to say, "Whatever the size of the cigarette, adhesives play a King-size role. We have been getting our package-, carton-, and case-sealing glues from Arabol. We feel that these products give our smoother blends better protection as well as permanently attractive packages."

In a hundred industries, the quality leaders put their adhesive requirements in the hands of Arabol. In that way they draw upon a specialized experience of more than 60 years. In that way they make use of the findings of three laboratories with 10,000 tested adhesive formulas on file for application to specific problems.

Your Arabol Representative is your contact between these resources and your own plant operations . . . Let him help you when he calls.

THE ARABOL MANUFACTURING CO.

Executive Offices: 110 East 42nd St., New York 17, N. Y.

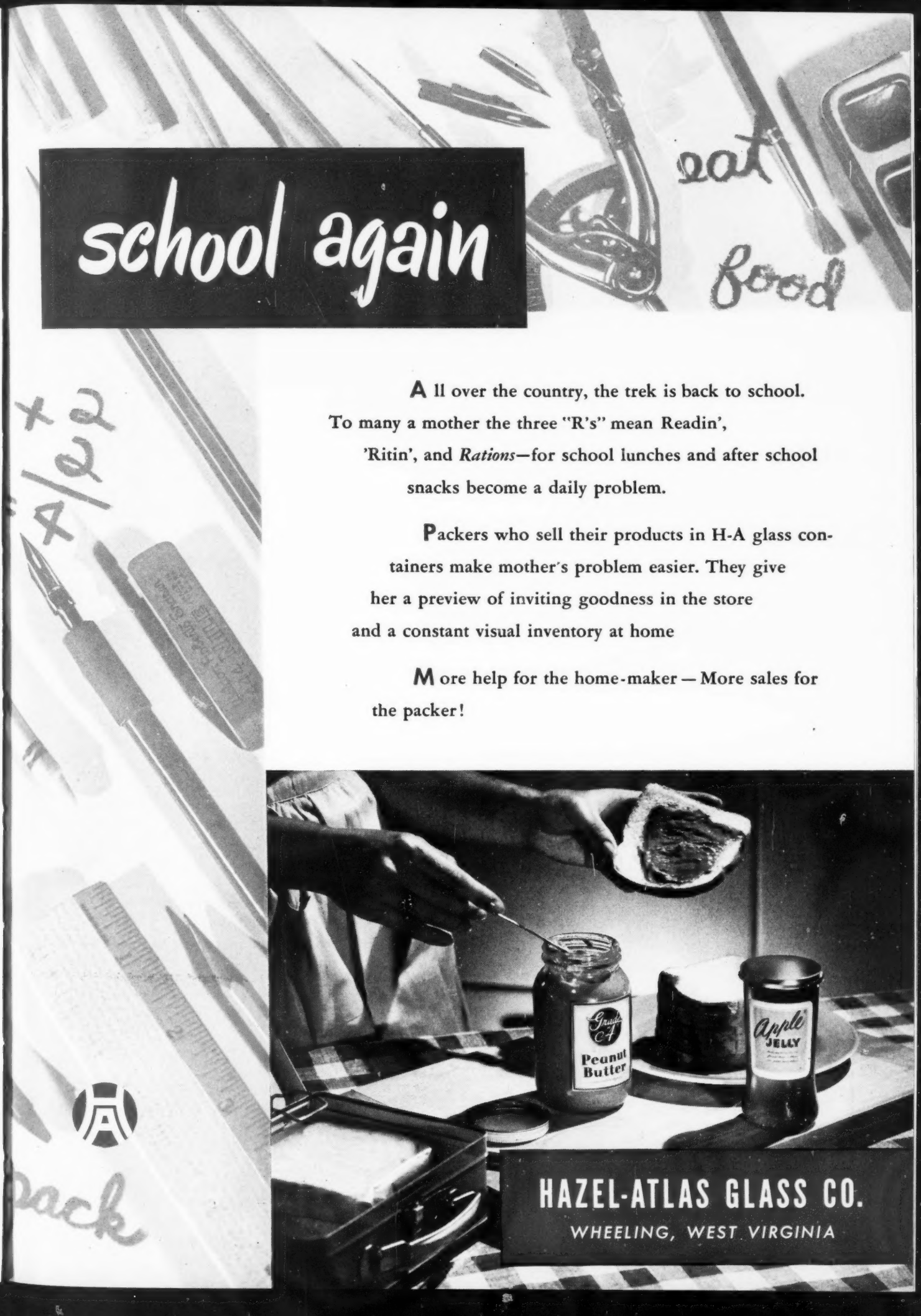
CHICAGO—54th Ave. & 18th St. • SAN FRANCISCO—1950 16th St.

LOS ANGELES—2262 East 37th St. • ST. LOUIS—2500 Texas Avenue

Branches in Principal Cities

Factories in Brooklyn, Cicero, San Francisco, Los Angeles, St. Louis

Adhesives?... ARABOL!



All over the country, the trek is back to school. To many a mother the three "R's" mean Readin', 'Ritin', and *Rations*—for school lunches and after school snacks become a daily problem.

Packers who sell their products in H-A glass containers make mother's problem easier. They give her a preview of inviting goodness in the store and a constant visual inventory at home

More help for the home-maker — More sales for the packer!

HAZEL-ATLAS GLASS CO.

WHEELING, WEST VIRGINIA

"IT WAS A BARGAIN WHEN I BOUGHT IT"

Eye appeal is synonomous with buy appeal, and the perfection with which Ridgelo takes printing is a tribute to its quality.

Integral pigmentation of colored types of Ridgelo spells remarkable resistance to light, is precisely controlled for matching.

Marvelous uniformity is a Ridgelo characteristic that is especially advantageous in high speed machine-type filling operations.

The perfectly-sized surface of Ridgelo means brighter, clearer printing . . . extra contrast . . . less ink consumption.

Sorry, sir, you're mistaken. Cheap, yes. But a bargain, no. To get a true bargain, one must obtain *value* . . . in excess of average cost. Since that's exactly what one does get in Ridgelo Clay Coated Box Board, the term "bargain" fits *it* to a "T" . . . and explains why the shrewdest buyers in the packaging business gladly pay more for it than the horde of "just-as-goods."

To back up both our own claims and our customers' confidence, Ridgelo puts no limits on the lengths to which it will go in assuring extra value and uniformly high quality. That is the reason for our unremitting research, for the fact that our entire output is custom-made.

If you are seeking to step up the appearance and serviceability of a package line, and step up product sales in consequence, then accept this invitation to investigate Ridgelo . . . from which you can get a *lot* more for just a *little* more!

Ridgelo
CLAY COATED
BOXBOARDS

MADE AT RIDGEFIELD, N. J.
BY LOWE PAPER COMPANY

Representatives:
H. B. Royce, Detroit
Norman A. Buist, Los Angeles
A. E. Kellogg, St. Louis
Philip Rudolph & Sons, Inc., Philadelphia

wider acceptance for your creams, pastes, powders, liquids, in WIRZ tubes . . .

attractive, sanitary, easy-to-use

More and more consumers will respond to the appeal of your products—creams, pastes, powders or liquids – when you package them in WIRZ Collapsible Metal Tubes. These self-dispensing units are designed to afford full protection for their contents, to assure high eye-appeal and to add convenience in use.

Let us help you plan a WIRZ Tube that will embody all these proved merchandising features. They will give you a safety margin in competitive markets.

ESTABLISHED 1836

A. H.

WIRZ

Inc.

Fourth & Cole Sts.,
CHESTER, PA.

York 17, N. Y. 0 E. 42nd St. | Chicago 4, Ill. 80 E. Jackson Blvd. | Memphis 2, Tenn. Wurzburg Bros. | Havana Cuba Roberto Ortiz Planos | A. G. Spilker Los Angeles 14, Calif. 1709 W. 8th St. Exposition 0178—Also Danville, Calif.

Export Division
755 Drexel Bldg., Phil. 6, Pa.

apsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression Molding

THE CATCH-COVER PACKAGE

by Sanitape-Sealtite

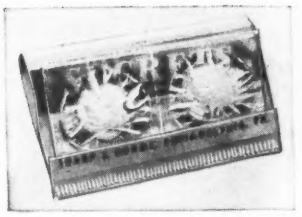
NEVER has sampling competition been so great —the bid for this buyer's market is being launched with every trick in the bag.

Your sample can win only if it is outstanding—in appearance, convenience, practicality and economy. The Catch-Cover Package is your answer. Consider it carefully on each of these counts—you will find that it is *tops* in the field. In addition, you have the important advantage of Contract Packaging. In our two superb plants, which have a capacity of 10,000,000 units daily, we handle your packaging efficiently, dependably and economically. Sanitape-Sealtite and the Catch-Cover Package is the direct answer to the demands of today's hard-hitting campaign.

Let Us Help You Produce a Winner

Sanitape-Sealtite

Attractive-
A compact, individual sample — beautiful, light, packaging materials reflect ethical cleanliness.



Convenient-
Carried easily in handbag or vest pocket, or safely kept in drawer or medicine chest.

Practical-
A complete, miniature package with product, product-name, directions and firm name presented together.

Economical-
Less expensive than any other satisfactory packaging. Let us give you details of our Contract Packaging operation.

IVERS-LEE COMPANY · 215 CENTRAL AVE · NEWARK · N. J.

UNIT PACKAGING

Sanitape-Sealtite is a unique method for packaging pills, tablets, capsules, creams and powders, by which each unit or unit-dose is sealed in its own air-tight compartment—assuring complete protection and maintained efficacy. Packages, machines and methods fully covered by U. S. and Foreign Patents and Patents Pending.

Blue

STOPS THE EYE... STARTS THE SALE

Right now rich, royal, eye-stopping Blue of Maryland Glass is playing an important part in the sales success of many nationally distributed products.

BLUE *makes your product easier to see . . .* BLUE *makes your product easier to remember . . .* BLUE *makes your product smartly modern . . .* BLUE *insures rich, distinctive appearance . . .* BLUE *stands out, assures better display . . .* BLUE *advertises your product in the store and home . . .* BLUE *builds profits, steps up repeat sales.*

Write for samples of appropriate stock designs. Or, let our design experts work with you in creating a special design for your exclusive use. Write today to Maryland Glass Corporation, Baltimore 30, Maryland.

PACK TO ATTRACT IN *Maryland Blue*

Also available in Crystal Clear Glass

PRIORITY DELIVERY!

Oscar Legg's

Paper Wool Maker

Sharpens itself while running • Turns waste paper into resilient paper wool packing • Ideal for disposal of secret and confidential documents • Will not clog or jam • Easily operated by unskilled labour • Output up to one ton per day • Clean new paper produces excellent food packing.

Both British made throughout

Oscar Legg's

HIGH SPEED *VACUUM* MACHINE

Speeds up Container closing!

Seals Tins, Jars and Bottles by mechanical closure whilst under vacuum.

Output per minute:—

300 one pound jam jars

1,000 one ounce tobacco tins.

Easy to operate • Entirely automatic • All controls and gauges on front panel • Vacuum or Inert Gas • Also operates with soldering iron for tins which require soldering.

CABLES "OSLEGOS LONDON"

Tingey & Co.

CODES A.B.C. 5th Edition and Bentleys

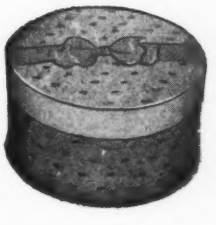
17-22 GOSWELL TERRACE · GOSWELL ROAD · LONDON E.C.1 · ENGLAND

Wistful Magic

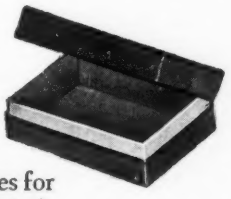
... and a touch of delicate splendor are imparted through the elegant craftsmanship behind Rowell containers.

This artistic achievement adds subtle persuasion to the purchase of cosmetics for face and dusting powders and helps send them on to their heavenly missions.

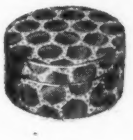
E. N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes
BATAVIA, N.Y.



50 years of craftsmanship



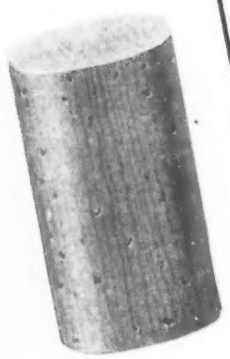
Boxes for pharmaceuticals



Magnificent color printing

GOOD PACKAGING BEGINS WITH GOOD SEALING

For TOP Security Seal with CORK



There is nothing like cork to seal the freshness and purity of glass-packaged drugs, cosmetics, foods and other products.

The success of the package—and the product—depends upon the reliability of the cork seal. Mundet Cork Closures are made from prime "pedigreed" cork, selected by Mundet representatives in the Mediterranean regions where the world's finest commercial cork is grown.

Mundet Cork Closures are made in types and styles for every sealing purpose. Get in touch with us now for practical suggestions on modern sealing with cork. Mundet Cork Corporation, Closure Division, 7101 Tonnelle Avenue, North Bergen, N. J.

ATLANTA
339-41 Elizabeth Street, N.E.

CHICAGO 16
2601 Cottage Grove Avenue

CINCINNATI 2
427 West 4th Street

DALLAS 1
505 Southland Annex

DENVER
The Stone-Hall Co.

DETROIT 21
14401 Prairie Street

HOUSTON 1
Commerce and Palmer Streets

JACKSONVILLE 6, FLA.
800 E. Bay Street

KANSAS CITY 7, MO.
1428 St. Louis Avenue

SAN FRANCISCO 7
440 Brannan Street
and
J. C. MILLETT CO.
118-32 Sacramento St.

LOS ANGELES (Maywood)
6116 Walker Avenue

LOUISVILLE 10
1416 Arbegust Street

NEW ORLEANS 16
315-325 N. Front Street

PHILADELPHIA 39
856 N. 48th Street

ST. LOUIS 4
2415 South Third Street

In Canada: Mundet Cork & Insulation, Ltd., 35 Booth Avenue, Toronto

MUNDET CORK CLOSURES

So easy to squeeze . . .

Easy does it! A slight finger-tip pressure dispenses your product from an Alcoa Aluminum Tube. From tooth paste to caulking compounds, many products are jumping the gun on competition because glistening Alcoa Tubes make them *easier to use.*

Alcoa Aluminum Tubes may be the answer to *your* packaging problem.

In short order, we can tell you if your product is suitable for packaging in aluminum tubes. Just send us samples and, without charge or obligation, we'll find the answer in our Alcoa Packaging Laboratory. Address: ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Pennsylvania.

Package It in Alcoa Aluminum Tubes

SMART APPEARANCE
NON-TOXIC
GOOD ECONOMY
GREATER STRENGTH
LIGHT WEIGHT
EASY DISPENSABILITY

ALCOA ALUMINUM TUBES

The toy-maker wants top point-of-sale attention value, plus any special inner construction needed to accommodate toy. He avoids unneeded strength that might add to cost of toy.

How are you fixed for Christmas packages?

The toy makers, whose products are shown here, are all set for Christmas. Miller-made set-up boxes are ready to carry the joy-producers to stores all over the land, and to stop the passing shopper at the counter.

If you happen to be not so well prepared, there may yet be time for fast action via Miller. Toys, indeed, but gift items of any kind—we're ready to design and make in time for Christmas use a box that's just right for the job.

There's a half-century of packaging experience available here. Whether you have a seasonal emergency, or an over-all problem, or just a few questions; whether it's toys or Christmas gifts or year-round staples—we are at your service without obligation.

CREATORS AND MANUFACTURERS OF SET-UP

WALTER P. MILLER COMPANY, Inc. *Paper Boxes*

452 YORK AVENUE • PHILADELPHIA 23, PA.

A CUSTOM BOXING SERVICE

To meet your Packaging Problems

RIGID PLASTIC BOXES

The best *are Injection Molded by* **TRI-STATE**

NOT ONLY BEST, BUT...

...less expensive too. The injection molding process eliminates the high costs of fabrication while a durable, more attractive package is achieved. Millions of these wonderful rigid plastic containers are selling across thousands of counters throughout the nation.

WE WERE FIRST, BECAUSE...

...we took the initiative. We tested and studied until the precise technique of injection molding rigid plastic boxes was developed. Got to be good to be first, and we intend to stay first because we are completely conversant with the problems of producing these containers.

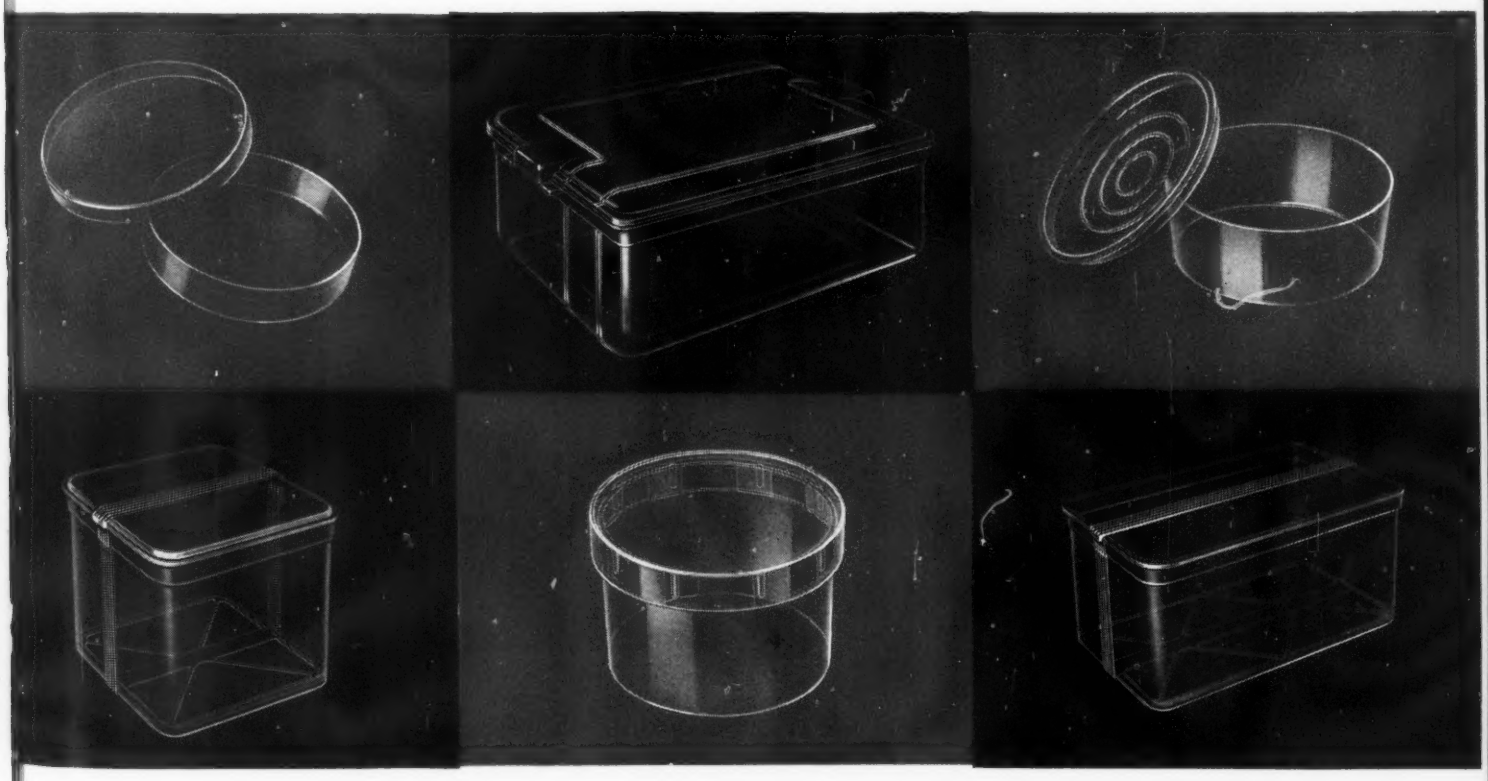
DOUBLE DUTY PACKAGES...

...preserve, protect and display merchandise. Non-toxic, odorless, shatterproof, dimensionally stable packages. One piece, no cemented sections. Washable and colorful...all the colors of the spectrum ...opaque or clear as polished plate glass. Distinctive merchandise packages. Handy household boxes when empty.

FILL YOUR REQUIREMENTS...

...we are equipped to mold rigid plastic boxes to your specifications or in a wide range of available stock sizes and shapes. Our design and production experience will help you to achieve your exact requirements at the lowest cost.

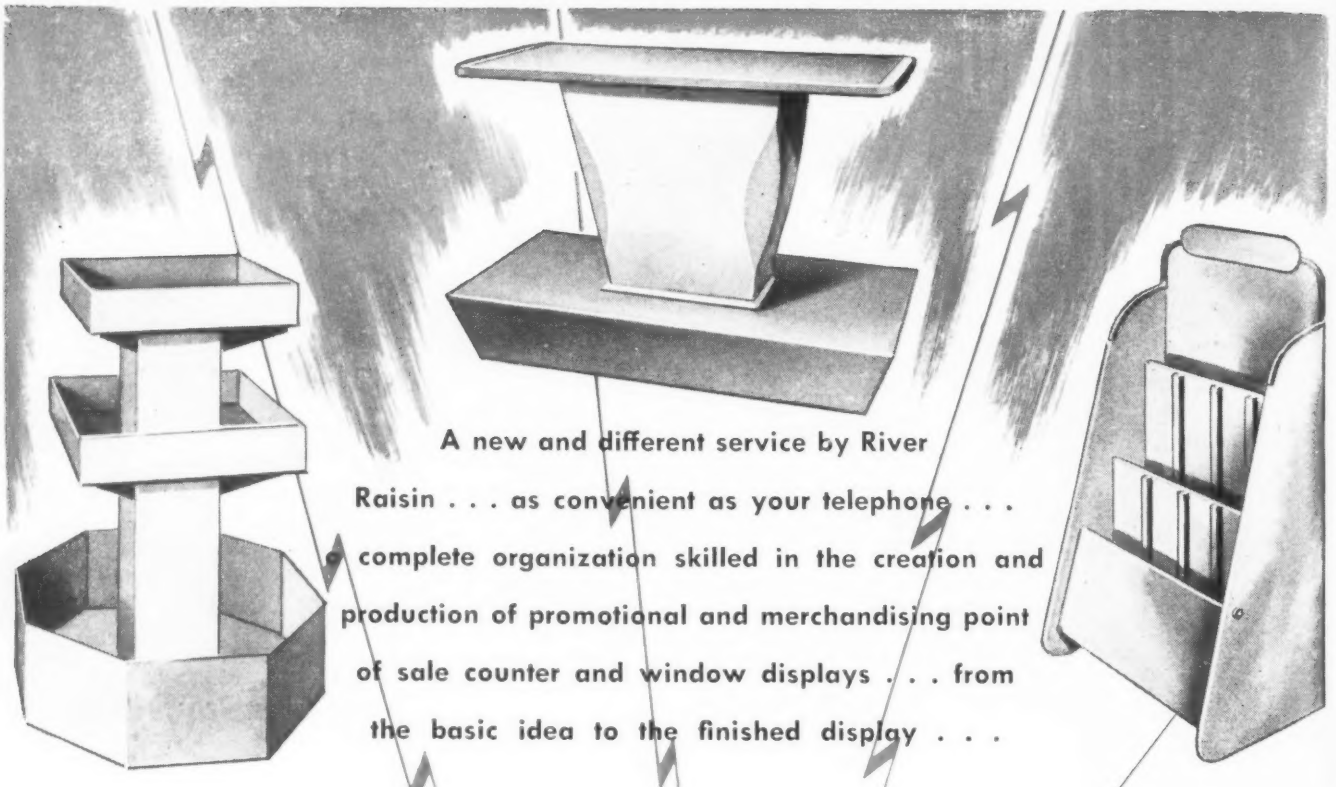
NOTICE: We are the sole inventors and originators. Patents have been applied for on all these designs and infringers will be prosecuted.



TRI-STATE PLASTIC MOLDING COMPANY

HENDERSON, KENTUCKY

New York Offices: 12 E. 41st Street—Murray Hill 3-6572



A new and different service by River Raisin . . . as convenient as your telephone . . . a complete organization skilled in the creation and production of promotional and merchandising point of sale counter and window displays . . . from the basic idea to the finished display . . .

One Call for All

River Raisin
DIMENSIONAL DISPLAYS

RIVER RAISIN PAPER COMPANY
Display Division

RIVER RAISIN PAPER COMPANY, MONROE, MICHIGAN • CORRUGATED AND SOLID FIBRE
SHIPPING CONTAINERS • PACKING MATERIALS • FIBRE BOARDS • CORRUGATING STRAW • SILICATE OF SODA

CRYSTALLIZED GINGER: It "granddaddied" an industry and points the way to better packaging for you!

Thirty and more years ago, there were only three quality confections which came in tin containers . . . crystallized ginger, . . . crystallized pineapple . . . and after-dinner mints.

Chocolates were not packaged in tin at that time.

But a man in New York City, who made quality chocolates, wanted to keep his product fresh longer and thereby broaden his market.

He knew that the conventional chocolate package—cardboard—wouldn't do the job.

So, he came to American Can Company for advice. It seemed to us that the ginger container, re-styled and re-designed, would protect the freshness of his product.

We were right. Today, this candy manufacturer is still selling his top-notch chocolates in the gold and mauve tin container we originally suggested to him.

The tin box for candy and other confections, in a multitude of shapes and closures, has made quality products available to more people, has helped build a huge industry, and has produced agreeable profits all along the line.

It may well be that your product plus our packaging "know how" can help you build a larger, more profitable business.

AMERICAN CAN COMPANY • New York • Chicago • San Francisco

This trade-mark CANCO *is your assurance of quality containers. Look for it!*

SAVED 1,196,000

and—

Your Automatic packaging equipment is no better than your cartons

IN producing 92,000,000 cartons for a nationally-known food packer in a single year—which, when folded would bulk greater than the Washington Monument, we actually reduced spoilage for all causes from 2% to 7/10 of 1%—1,196,000 cartons—or enough to wrap the Monument in cartons several times over.

We build *precision and uniformity* into our products. Let us build these qualities into *your cartons.*

Most of the customers who started with us 25 years ago are still on our books.

THE GUILFORD FOLDING BOX CO.

Haven Street and Ashland Avenue • Baltimore 5, Maryland • Phone: Orleans 2043

QUALITY CARTONS Faithfully Produced

PRINTING ON PLASTIC GOES FASTER

IONOTRONS end "intolerable static condition" for Susquehanna Plastics, Inc.

Plastic films, printed with natural color reproductions of fruits and flowers, are popular products of Susquehanna Plastics, Inc. of Hawthorne, N. J. You've seen them, perhaps, as attractive table coverings.

Specially designed gravure printing equipment for this process now presents no static problem. It is equipped with the Ionotron Static Eliminator.®

Mr. George T. Howe, Plant Manager at Susquehanna Plastics, says:

"Due to the high speeds at which our presses are run, the plastic films would create an intolerable static condition if it were not for Ionotrons. They reduce fire hazard, improve spread of ink, avoid static shocks to personnel, and insure the delivery of static-free films."

Application to plastic films is only one of the increasing number of uses for the Ionotron. This unit, in the form of a simple bar, contains a continuous source of radiation which ionizes air at the point where static charges occur, and "bleeds off" the charges before trouble occurs. It requires no power connection and can't cause a fire. Its active life is far longer than that of machines on which it is used.

On wool cards and other textile machines, plastic coating and counting units, packaging and printing equipment, Ionotrons may be the answer to slowdowns due to static. For information write Dept. Q-3, U. S. Radium Corporation, 535 Pearl Street, New York 7, N. Y.

U S RADIUM

IONOTRON Static ELIMINATOR

They're all-

Tom Huston Peanut Co., products!

They're all-

WRAP-O-MATIC wrapped!

We are proud to display this group of Tom Huston Peanut Co. products, "dressed-to-sell" by Wrap-O-Matic wrapping.

Wrap-O-Matic was chosen on merits of performance . . . high speed, economical wrapping of fragile, regular or irregular shaped products without the use of collars, trays or other protective materials, permitting the products to be displayed in full view when using transparent wrappers.

High speed wrapping up to 120 units per minute . . . economical wrapping with savings up to 75% in wrapping labor and up to 35% in wrapping material. These savings combined with the added eye- and sales-appeal mean lowered costs, more sales, more profits.

Enjoy the benefits of Wrap-O-Matic wrapping —send us samples of your products and ask for illustrated literature.

LYNCH CORPORATION

Package Machinery Division TOLEDO 1, OHIO U.S.A.

Three subjects to refer to when you plan your package

If you want to determine the effectiveness of your package, ask yourself these basic questions:

Does it have sales appeal? Transparency plays a vital part in showing the value that customers demand. Du Pont Cellophane lets shoppers see the product. It flashes an arresting message that helps prompt impulse sales.

Does it do a good protective job? There are now more than 50 different kinds of Du Pont transparent films chemically tailored to meet the needs of 'most every type of product.

Is it economical? Du Pont Cellophane provides *transparent protection* at *lowest cost*. It operates with high efficiency on automatic packaging machinery—another important cost advantage. Up-to-the-minute packagers agree that Du Pont Cellophane satisfies effective packaging requirements.

Our field representatives, and the converters of Cellophane, will be glad to assist you in developing effective packaging that incorporates these three basic points. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Div., Wilmington 98, Delaware.

DuPont Cellophane

Shows what it Protects—at Low Cost

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

THOMAS HART BENTON
3616 BELLEVIEW
KANSAS CITY, MO.

May 26 - '48

Mr. N. J. Leigh
Einson - Freeman Co. Inc
Long Island City, N. Y.

Dear Mr. Leigh —

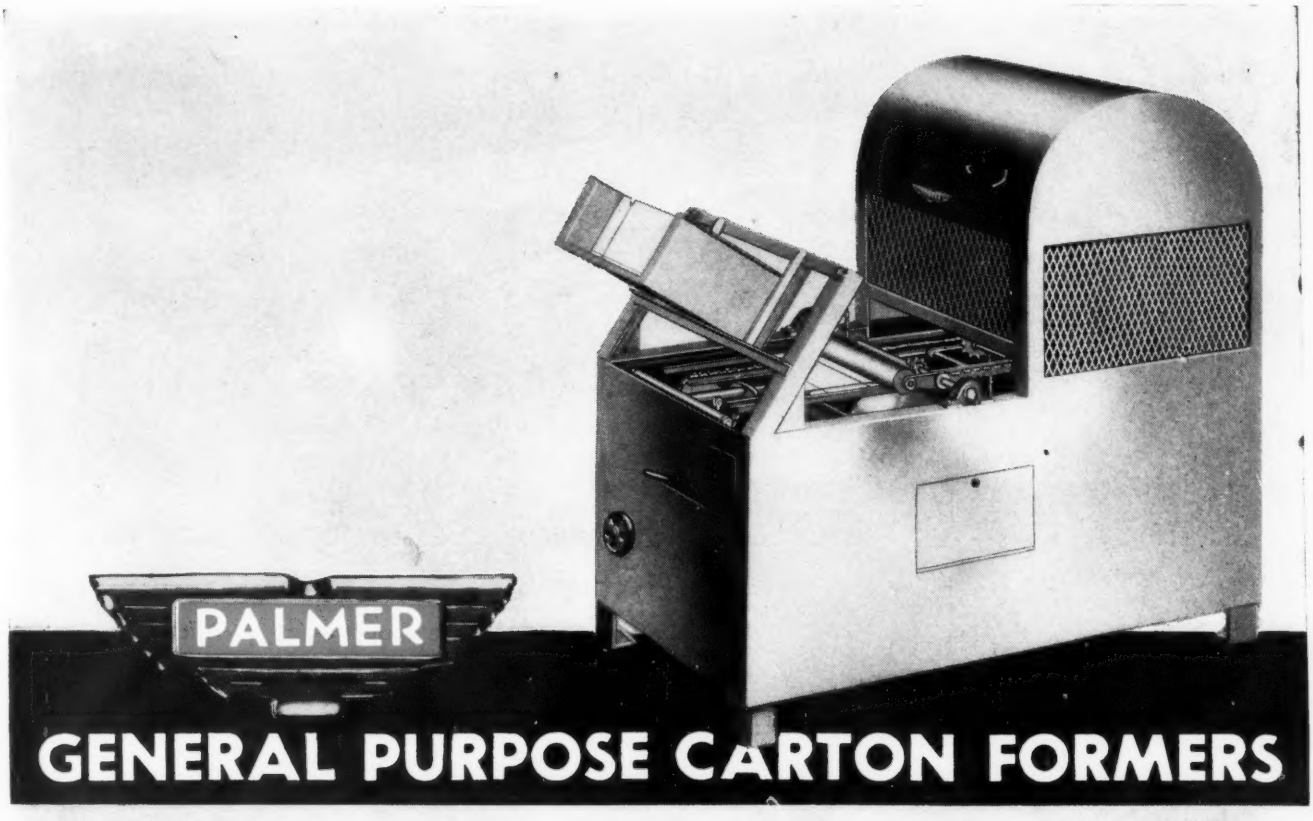
The reproductions of 'Spring Tryout' have arrived. They are really astonishing. I don't believe I've seen any lithographic reproductions which are qualitatively as ~~accurate~~ good or which are as accurate. They are good enough to send as Christmas presents and with that in mind I have use for as many as you can afford to send me. I can easily use twenty five. But send me what you can.

Cordially

Thomas H. Benton

MR. BENTON refers to the 30½ x 24¼ reproduction of his painting "Spring Tryout" made by Einson-Freeman as a gift print last Christmas. (Might even have some copies still. If you'd like one, just write.) While we rarely get art for reproduction as fine as a Thomas Benton painting—we reproduce all art just as faithfully... because effective display requires the best—and gets it here!...

EINSON-FREEMAN CO., INC.
Starr & Borden Aves., Long Island City, New York



GENERAL PURPOSE CARTON FORMERS

Save Time - Save Space - Save Labor and Automatically

CUT YOUR PACKAGING COSTS

Every manufacturer knows that today's increasing competitive pressure, and dangerously shrinking safety margins between profit and loss demand intelligent cutting of costs . . . Production volume has to be stepped up to profitably efficient speeds, hand labor cut to a minimum and wasteful, nonproductive factors eliminated . . . In this new PALMER General Purpose Carton Former you'll find an effective answer to high packaging costs . . . It automatically forms, glues and delivers complete cartons of uniformly high quality continuously to your packaging line. It can quickly be converted from one to another of many sizes and styles of cartons—using standard blanks . . . Long, costly change-over periods are eliminated. It puts an end to "skipped" stations on your production line, to mal-formed carton waste, and to inefficient manual operations. Valuable floor space requirements are reduced to a minimum, and stock-piling of reserve cartons becomes useless . . . The small initial investment in this machine will quickly be returned to you many times in faster, more efficient package production at very low cost per package . . . Let our engineers show you how easily it can be adapted to your specific requirements.

PALMER
General Purpose
Carton Former

A highly efficient convertible machine of wide adaptability. Delivers trays or cartons of any practical size from standard blanks, completely formed and glued with tabs inside or outside; with extended end flaps, with closure flaps or a combination; with or without cut-out sides; with or without finished edges, plain or reinforced, square or tapered. Speeds to fit your requirements; minimum floor space; minimum change-over time.

FRANK D. PALMER, Inc.

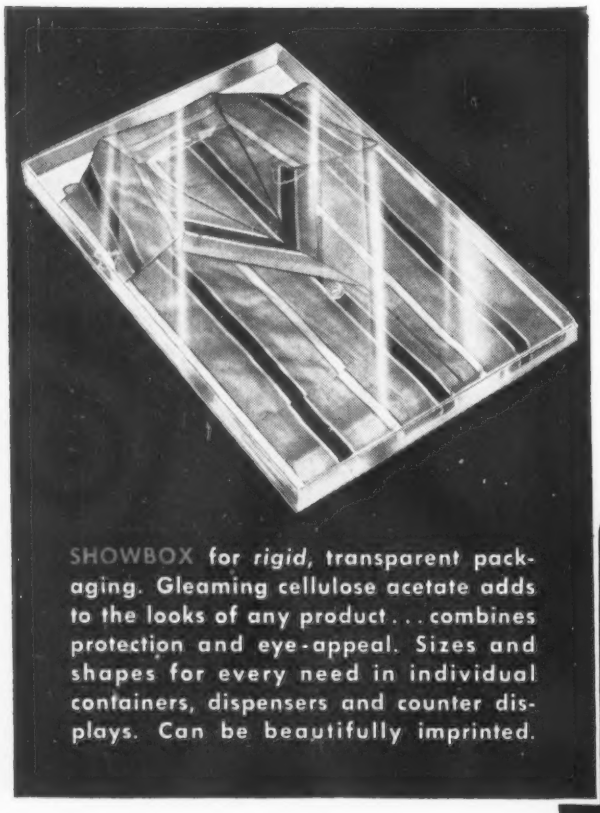
528 N. WESTERN AVE. CHE 3344 CHICAGO 12 • 60 E. 42nd St. LINCOLN BLDG. VA 6 4185-6 NEW YORK 17

PACKAGING MACHINERY MANUFACTURERS

Here are two extra salesmen for your staff . . .

Showbox and Showbag

are Your SILENT SALESMEN*



SHOWBOX for *rigid*, transparent packaging. Gleaming cellulose acetate adds to the looks of any product . . . combines protection and eye-appeal. Sizes and shapes for every need in individual containers, dispensers and counter displays. Can be beautifully imprinted.

SHOWBOXES and SHOWBAGS boost the sales curve by making products look more attractive. These transparent plastic containers are durable, may be imprinted in multiple colors and have re-use value.

SHOWBAG for *flexible*, transparent packaging. A variety of strong films offer moisture, oil and chemical resistance for bags, wrappings, barrel and drum-liners. Simple heat sealing opens up a thousand inexpensive new uses.

* *Manufacturers seek "greater reliance on the use of packaging as the SILENT SALESMAN to win and hold customers by adding greater convenience, attractiveness and usability to their merchandise" . . . according to a survey of more than 1,000 companies by the American Management Association.*

Write for samples and prices

PLASTICS DIVISION

CENTRAL STATES PAPER & BAG COMPANY

5221 NATURAL BRIDGE ST. LOUIS 15, MO.

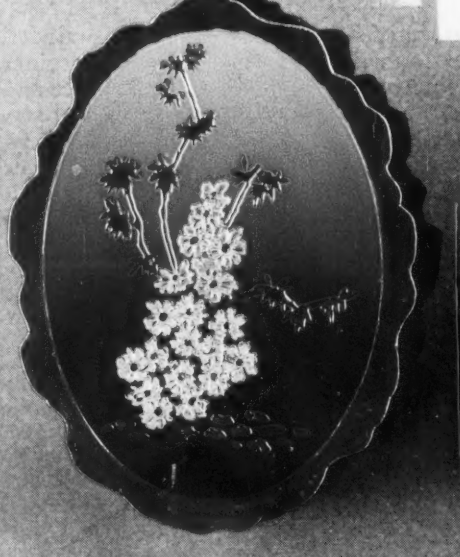
NEW YORK CHICAGO DETROIT PHILADELPHIA LOS ANGELES
CLEVELAND CINCINNATI KANSAS CITY DENVER

Package Enhancement

A necklace on a lovely throat, or shapely evening pumps strapped to graceful ankles . . . Or, just one bright star against the black of a velvet sky . . . Yes, all beauty can be ENHANCED by just one touch — the right touch — to intensify attraction to the eye.

Your packaging can be ENHANCED by *Cameo* indivisualized quality seals, tags, wraps and labels — that right touch of ENHANCEMENT to intensify eye-appeal of your product. At *Cameo Die and Label Company* both art and merchandising are respected.

Whether it be a candy wrap for Valentine's Day, a gift package for Mother's Day, or a floral box for Easter — whatever the season, the occasion, the product, for artistry that sells, it's *Cameo* PACKAGING ENHANCEMENT.



CAMEO

DIE AND LABEL COMPANY

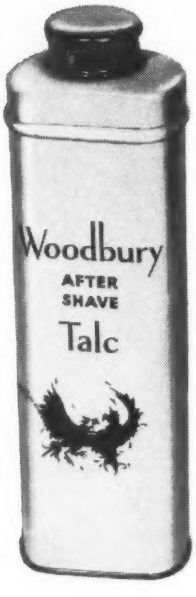
154 WEST 14TH STREET

NEW YORK 11, NEW YORK

Canada: Cameo Crafts, Inc., Montreal 1, Quebec

"National Can is as near as your telephone"

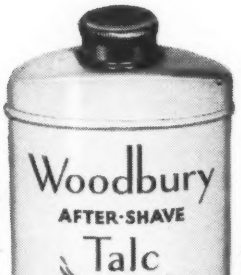
A GOOD PRODUCT



DESERVES

A GOOD

CONTAINER



...USE NATIONAL CAN

When considering the packaging of your product, be sure to choose lithographed metal containers for full protective and sales-promotional possibilities. Make certain that your container design is distinctive as well as colorful . . . that the materials and construction are durable. Take full advantage of the permanent sales appeal and product identification made possible only by skillful lithography.

When selecting a container supplier, consider the advantages you get by using National Can. With nearly fifty years of experience in the manufacture of lithographed metal containers, National Can will help you build your container around your product. From advising on size and shape of the container to origination and layout of the illustration, colors and photography, National Can specialists stand ready to render complete, personalized service.

Quality products are better promoted and protected by quality containers. And for quality containers, there's no better source than National Can. Obtain full details by telephoning our nearest sales office or plant.

6902

NATIONAL CAN

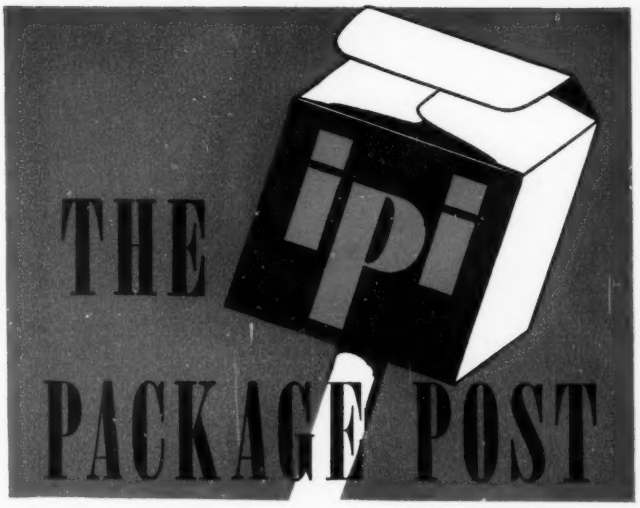
CORPORATION

Executive Offices: 110 EAST 42nd STREET, NEW YORK 17, N. Y.

Sales Offices and Plants in: Baltimore, Md. • Indianapolis, Ind. • Chicago, Ill. • Maspeth, N. Y. • Hamilton, Ohio • Canonsburg, Pa. • Boston, Mass. • St. Louis, Mo.

This Color Poll is Good to the Last Fact

We got a chuckle out of the final touch Organic Finishing magazine put to its report on a color poll made by the Automobile Manufacturers Assn.: "Intellectuals prefer blues, athletes, red; egotists, yellow, and extroverts, orange. Hindus and Chinese consider yellow lucky; Mohammedans —and Irishmen—pick green. Latins and typical brunettes like red. Blondes prefer blue and green. P.S. . . . Most men prefer blondes."



Wake Up with Laughter the Morning After

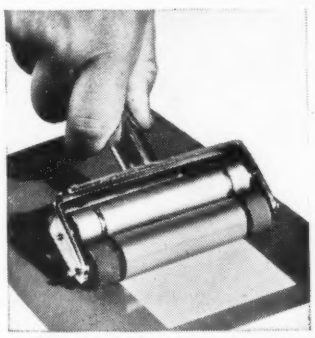
Smart package production men know that one way to wake up smiling the morning after a package goes to press is to call in their printer early—while the package is still in the dummy stage. This gives the printer a chance to bring his ink supplier into the picture. Printing problems are minimized and colors selected which can be matched in inks with the required resistance to light, handling, and chemical deteriorants.

IPI • DIVISION OF INTERCHEMICAL CORPORATION • 350 FIFTH AVE., NEW YORK 1 • ADDRESS INQUIRIES DEPT. MP9

SAVE TIME AND MONEY PROOFING ANILINE INKS WITH NEW HAND PROOFER

The Anilox Hand Proofer is ideal for all Anilox and aniline color proofing, especially on cellophane, glassine, and other non-porous stocks. It is the first hand-proofing device for aniline inks and was developed through the cooperation of IPI and Paper Machinery and Research, Inc.

The unit contains one solid rubber roll and one chrome-plated, engraved, contacting



Anilox Hand Proofer is ideal for proofing Anilox and aniline inks on cellophane and other non-porous stocks. Chrome-plated, engraved contacting roll distributes ink to solid rubber roll.

Anilox or Evenflo roll. The Anilox or Evenflo roll is engraved with 165 depressions per inch to measure the proper quantity of ink for average work. It will also serve for users of aniline-type presses lacking engraved rollers.

Extra engraved rollers, which can be interchanged in the testing unit, are available. They are made with 75, 100, 125, 150, and 200 depressions per inch. Price is $15; extra rolls are $5 each.

(IPI, Anilox, and Vaposet are registered trade-marks of Interchemical Corporation.)

"BREAK-APART" CARTON REQUIRES INKS WITH HIGH RUB-RESISTANCE

The hand which has never lost its skill in making fine beer—that of The F & M Schaefer Brewing Co. of Brooklyn, N.Y. —showed further skill when it developed its new "break-apart" carton for canned beer.

The carton is ingeniously perforated so that it may readily be cut and broken in half to become two separate cartons for small-quantity purchasers.

The inks used on this job must have high rub-resistance to withstand strong grip pressure when the carton is cut and broken in two, as above. IPI Vaposet inks were chosen. They dry instantly on warm moist corrugated board, speed production.

PACKAGE SHOW VISITORS—DID YOU GET ONE OF OUR MINIATURE COLOR FILES?

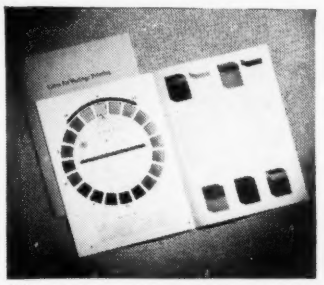
So successful were the packaging shows this year in Cleveland and San Francisco that not every visitor to the IPI booths was able to get one of the popular IPI souvenirs —a colorful little box housing a miniature file of 26 package colors printed on both machine coated board and patent coated board. Half of each color swatch is varnished. There are 52 color swatches in all, each of which is marked with its A.S.A. specification.

We have a few of these color files left. If you'd like one, write on your letterhead.

"INTERESTING & HELPFUL," SAY PACKAGING EXECUTIVES OF BROCHURE ON COLOR FOR PACKAGE PRINTING

Because many packaging executives have been kind enough to write us after reading "Color for Package Printing," we believe the brochure is proving to be both interesting and helpful.

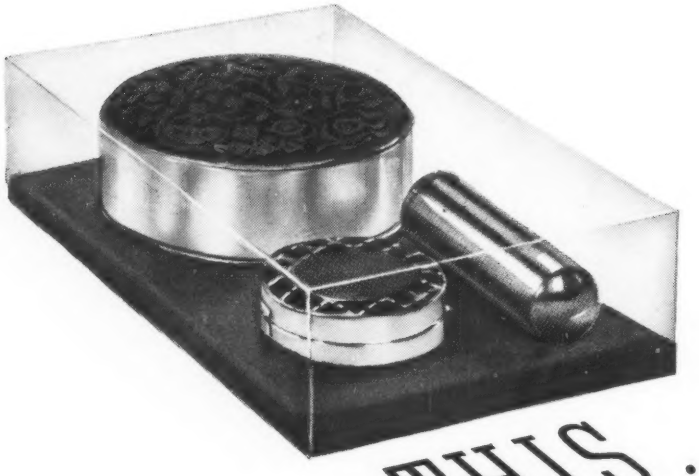
W. C. Palmer, Vice President of National Folding Box Co., writes, "This is a most interesting brochure and I feel it should be very helpful to our salesmen." Another letter, from Norman F. Greenway, Vice President Folding Cartons Divisions, Robert Gair Co., says, "This brochure



This is the center spread in the IPI Brochure, "Color for Package Printing." Hue circuit and color schemes on the packages are shown in full color. Brochure also contains guide to printing inks for packaging.

was most interesting and I have passed it along to the art department." And W. R. Thomson, President of the Southern Handkerchief Manufacturing Co., writes, "We have read it with interest."

Copies of this comprehensive brochure on packaging color problems are free. If you will write on your business letterhead, we will be glad to send you a copy as long as our supply lasts.



THIS . . . INSTEAD OF THIS

MAKES SENSE TO SHOPPERS

Combination Packaging with Lumarith* Transparent Film

. . ORGANIZES THE SHOPPING CHORE

. . SAVES TIME FOR SALES PERSONNEL

. . HELPS MOVE *MORE* GOODS *FASTER*

. . CUTS DOWN SOILAGE AND DAMAGE

. . LENDS A *GIFT* LOOK TO STANDARD ITEMS

Combination packaging in containers of Lumarith transparent film makes sense in selling, because it glamorizes the purchase.

For names of convertors who can supply you with custom-made or stock boxes of Lumarith, get in touch with a Celanese representative.

CELANESE CORPORATION OF AMERICA
Plastics Division, Dept. P-1
180 Madison Avenue, New York 16, N. Y.

A Celanese* Plastic

*Reg. U. S. Pat. Off.

TOP-SEALING YOUR CONTAINERS

so your profits can't leak out!

HOW BOSTITCH AUTOCLENCH STOPS TWO COSTLY LEAKS:

1. LOWERS SEALING COSTS

On many products shipped in corrugated containers, you can beat other top-sealing methods by giving them the Bostitch Autoclench *touch*. Yes! Just *touch* the container on the outside and the staple is clinched on the inside. As fast and easy as that! No need to insert a sealing blade; the staple closes itself.

Containers may be dusty or clean, hot or cold, damp or dry. The sealing is instant; no drying time. It's sure; no failures. It's neat; no staining nor covering up the printing. All these benefits are yours when Bostitch Autoclench does your top-sealing.

2. PREVENTS SHIPPING LOSSES

On containers suited to this method, you can't beat Bostitch Autoclench for secure fastening. Drum and drop tests have proved that. Dampness can't loosen the seal and let the contents spill out. Pilfering is discouraged — the staples can't be taken out and put back by hand without detection. But, you and your customers can take the staples out *without damaging the container* . . . a re-use *plus* that's worth big money.

A DEMONSTRATION WILL CONVINCE YOU THAT BOSTITCH AUTOCLENCH FASTENS IT BETTER AND FASTER

See how the amazing Autoclench staple closes itself. Look up your nearest Bostitch distributor in your phone book, or write BOSTITCH.

If your problem is different, ask about the complete Bostitch line of top stitchers, bottom stitchers, self-feeding hammers and tackers, and other stapling and wire stitching equipment.

Machine weighs only three pounds. A girl can handle it with ease.

At packing bench or in shipping room, Bostitch Autoclench "seals them where they are."

So quick and so portable— it can seal them as they pass by.

BOSTITCH
fastens it better, AND FASTER with wire
ALL TYPES OF MACHINES FOR APPLYING STAPLES
ALL TYPES OF STAPLES APPLIED BY MACHINES

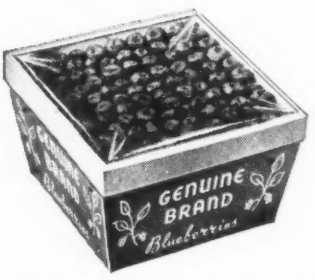
BOSTITCH
522 Mechanic Street, Westerly, R. I.

Please send literature checked: ☐ #175 Bag Sealing ☐ #157 Carding ☐ #132 Shipping

Name.....
Company.....
Address.....
City.....Zone.....State.....

MR. CELLOPHANE SHOWS THE WAY TO BETTER PACKAGING

SYLVANIA CELLOPHANE has the qualities so necessary for distinctive packaging. Every step in its manufacture is carefully checked. This careful control assures not only uniform transparency and a good printing surface, but also the high degree of dust, grease and water vapor protection . . . the low temperature durability and heat sealing qualities that make it outstanding in so many fields.



A sheet of Sylvania Cellophane held over top of folding box by cardboard ring keeps the blueberries it contains firm and flavorsome. Holes in sides and bottom assure ample ventilation.

SYLVANIA CELLOPHANE

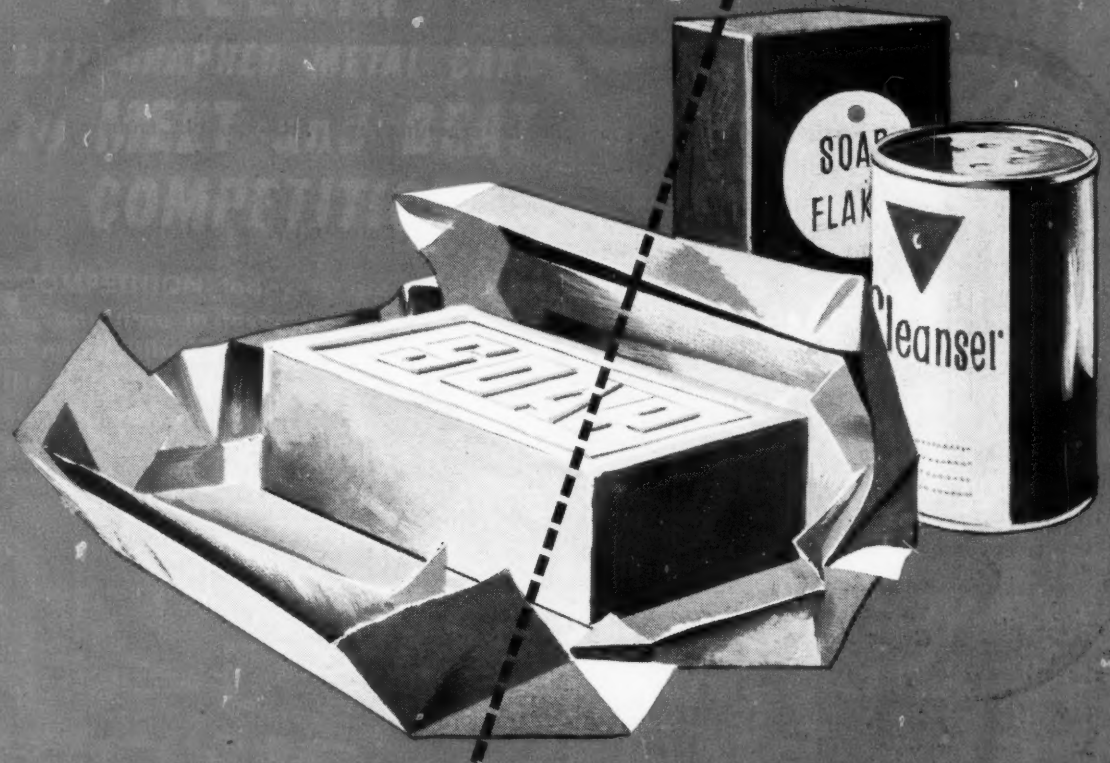
SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N. Y. *Plant:* Fredericksburg, Va.

SYLVANIA CELLOPHANE

coming clean on soap



The cleaning, laundering, and personal ablutions of the nation accounted for $388.4 million worth of soap in 1946—$644.5 million worth in 1947. With fats and oils in more ample supply, poundage and dollar-volume for '48 are expected to surpass last year's record by a wide margin.

Manufacturers of soap in its varied forms are in a lather about the competitive inroads of detergents. Meanwhile, mounting sales of all these cleansers make for big business in the corrugated cases in which most of them are packed.

Soap, soap products, and other cleaning agents are assured a safe trip to market in cases made of sturdy MEAD .009 Chestnut Corrugating. For more than 20 years, chestnut and other hardwood fibers have given this dependable MEAD board the super-strength to withstand shipping and handling hazards.

Mead Board is sold direct by

MEAD BOARD SALES, Inc.

3351 MADISON ROAD, CINCINNATI 9, OHIO

ASK STOKES

Pack it faster, easier, cheaper on Stokes Tube-filling Machines

IF it's no thinner than kerosene . . . no heavier than roofing-cement . . . if it will flow . . . you can pack it in tubes with a Stokes Tube Packaging Machine.

Tubes are flexible, compact, light, clean to handle. They offer strong selling-points in the package.

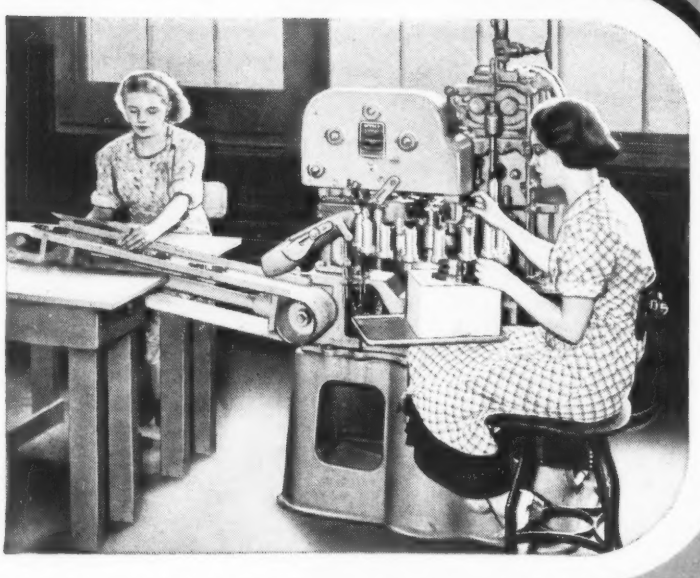
Stokes' commanding reputation in the field of Tube Packaging machinery is only partly due to the mechanical superiority of Stokes Machines. Largely it is due to the complete advisory, research and test service by which Stokes engineers help you to choose precisely the right machine and attachments from the complete line of Stokes Tube Packaging machinery.

The Stokes-patented Westite Hermetic Closure assures positive sealing of oily mixtures . . . of "leakers" and "seepers" . . . of substances that tend to oxidize . . . of other specialties that are usually difficult to package in tubes.

You need not guess about Tube Packaging. Write F. J. Stokes Machine Co., 5970 Tabor Rd., Philadelphia 20, Pa.

FJS

Stokes makes Tablet Machines, Pharmaceutical equipment, Tube Fillers, Vacuum and Special Processing equipment, Vacuum Pumps and Gages, Plastics Molding Presses, Water Stills, and Special Machinery.



Stokes Series 90 Special Model Tube Filling, Closing and Sealing Machine, equipped for "Fat-Filling." Handles up to 30 tubes per minute, up to 2" diameter, 10" length, 9 fluid ounces capacity.

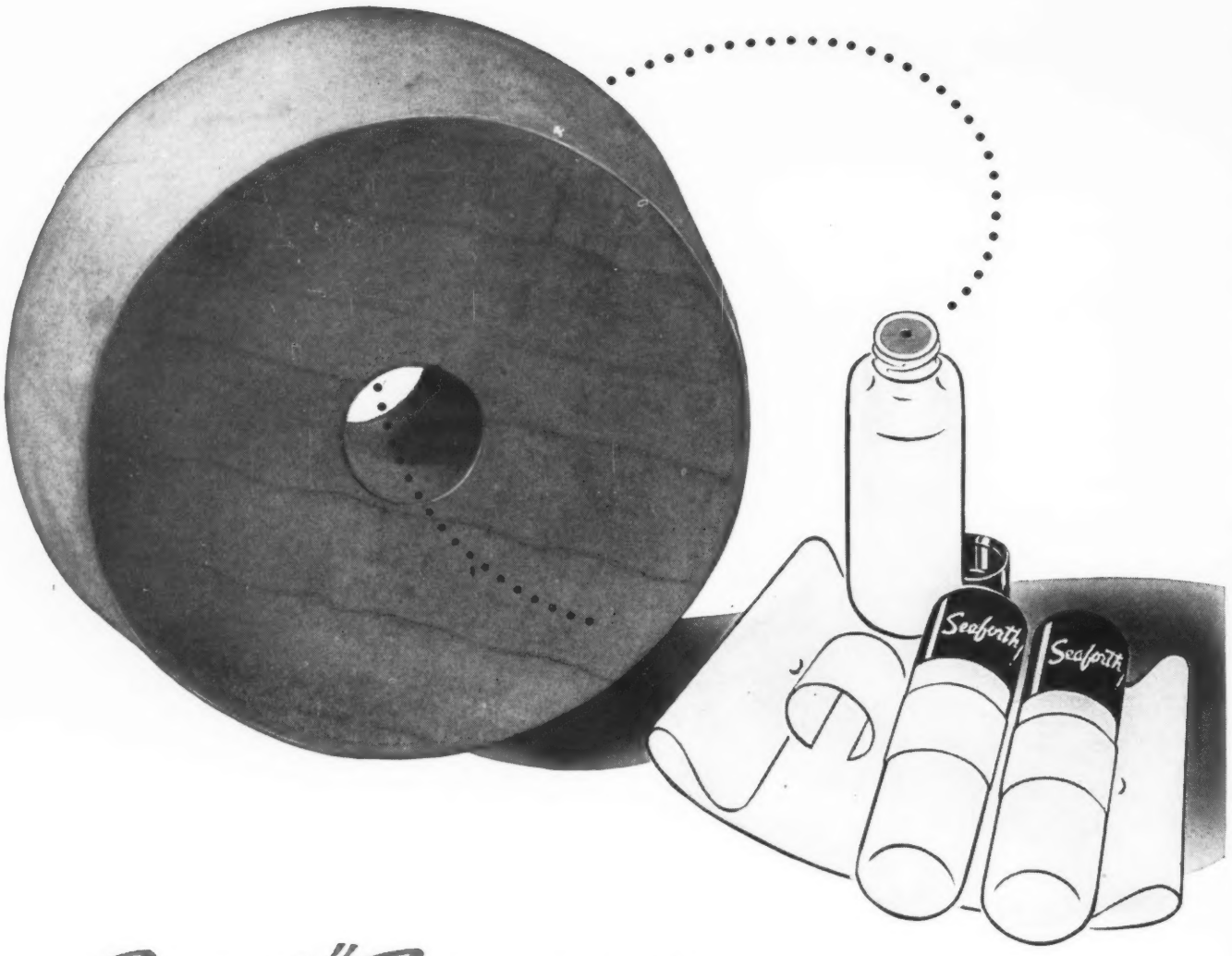
STOKES KNOWS HOW

PACK YOUR PRODUCTS IN HEEKIN *LITHOGRAPHED METAL CANS to MEET and BEAT COMPETITION*

COMPETITION today is greater than at any time in history. Heekin pioneered in metal lithography and is the leader in the faithful reproduction of colors on metal cans . . . of assorted sizes, shapes and designs. Bring your lithographed metal can problem to Heekin. We welcome it.

HEEKIN *LITHOGRAPHED* CANS

THE HEEKIN CAN CO. CINCINNATI 2, OHIO



Seaforth "Steps forth"

THROUGH A DODGE CORK

Seaforth's famous line of men's toiletries now includes two handsome new travelling kits. Dodge shell corks make each container in these sets a practical dispensing package. Through a Dodge cork, the user conveniently gets the proper amount of these heather-fresh toiletries. Dodge provides Seaforth with high quality corks—exclusively. Accuracy of fit is a "must." Accuracy is an old Dodge habit.

Your needs may be similar to Seaforth's. Or your requirements may call for a closure that individualizes and adds sales appeal to *your* product. Whatever they are, rely on Dodge. From long experience, Dodge knows every phase of cork manufacture.

DODGE CORK COMPANY, INC., LANCASTER, PENNSYLVANIA

Dodge

CORK CLOSURES

DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS

We sew... and paste... and TAILOR!

The only thing that's *constant* about a St. Regis multiwall paper bag is its economical efficiency.

But otherwise these containers are capable of infinite variety. Their construction alters to suit the product to be packaged. Our research never stops—in devising ways to protect against moisture, temperature changes, handling hazards, contamination, infestation and all other troubles that beset commodities in transit or in storage. To date, over 400 diversified products are packaged in St. Regis multiwalls.

Our nearest sales office will gladly discuss any packaging problem you have in mind. And will show you how a St. Regis Packaging System (St. Regis packers plus multiwalls) can cut container costs and increase production.

SALES SUBSIDIARY OF ST. REGIS PAPER COMPANY

ST. REGIS SALES CORPORATION
230 PARK AVENUE • NEW YORK 17, N. Y.

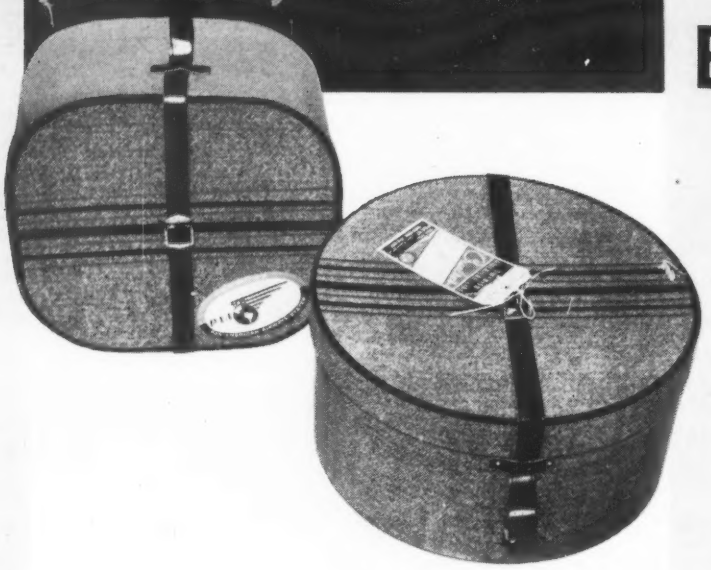
NEW YORK 17: 230 Park Ave. • CHICAGO 1: 230 No. Michigan Ave. • BALTIMORE 2: 1925 O'Sullivan Bldg. SAN FRANCISCO 4: 1 Montgomery St. • ALLENTOWN, PA.: 842 Hamilton St. • OFFICES IN OTHER PRINCIPAL CITIES—IN CANADA: ST. REGIS PAPER CO. (CAN.) LTD., MONTREAL • HAMILTON • VANCOUVER

ST. REGIS-WORLD'S LARGEST MANUFACTURER OF MULTIWALL PAPER BAGS

ST. REGIS BAG FILLING MACHINES
St. Regis OPEN MOUTH
St. Regis MULTIWALL
PAPER VALVE BAGS
BETTER PACKAGING AT LOWER COST
ST. REGIS PACKAGING SYSTEMS

sales promotional packaging that sells and re-sells!

Re-Use REMEMBRANCE *Packaging*



Jacoby designed

Boxed Promotions

for

- CANDY
- COSMETICS
- LIQUORS
- SHOES
- GIFT BOXES
- HATS
- FOUNDATION GARMENTS
- BON VOYAGE BASKETS

Now! Enhance your products with *Jacoby-designed* re-use remembrance packaging that sells and resells! Here is packaging that lives long after the product has been used. Here is packaging with utilitarian value that keeps your name ever in sight — ever in use!

Whether it be candy or liquor, cosmetics or shoes, hats or bras . . . your package remains to be used as a luggage piece, a carrying container, a knitting box — for a hundred and one day-in, day-out convenient purposes.

Speedily, economically your package is created in one plant — from the original design to the completed package. And your package is *Jacoby-designed* with an eye toward sales promotional values, toward the goal of re-use remembrance packaging. Call or write *today!*

JACOBY-NARCE CORPORATION

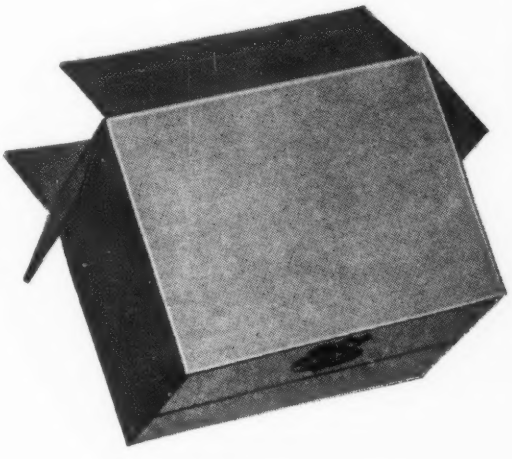
"sales promotional packaging since 1932"

72 SPRING STREET • NEW YORK 12, NEW YORK

BOSTON • DETROIT • CHICAGO • DALLAS • LOS ANGELES

The proof of value is the Pedigree . . . . . .

In boxes, Too!



PROOF OF *Quality*
PROOF OF *Service*
PROOF OF *Fair Price*

THE ENGLISH SETTER, stately in appearance, has been favored as an excellent bird-dog by sportsmen for almost four centuries. He is very gentle and lovable in disposition. He needs plenty of space and exercise in order to be happy, so never confine him to close quarters!

A box with a pedigree? Yes, you can trace a Union 100% Kraft corrugated container all the way back to Union's own forests. Every step in manufacture, from tree to finished box, is quality-controlled by *one* responsible management, operators of the largest Kraft pulp-to-container mill in the world.

And more than that: For more than 75 years Union has been the leader in paper packaging, producing specification bags for hundreds of industries.

The same skill in production, the same vast forest resources and mass production economies which have put Union at the top in paper packaging have also built a containerboard business which last year accounted for nearly 6% of America's total tonnage of Kraft boxes.

Today Union's board is going into corrugated containers bearing the pedigree mark of the famous Union shield.

This emblem identifies an organization which, for three quarters of a century, has been fully conscious of its responsibilities to customers who must depend on the reliability of their container source for the continued operation of their own plants.

UNION *Corrugated Containers*

UNION BAG & *Paper Corporation*

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

Corrugated Container Plants: **SAVANNAH, GA. • CHICAGO, ILL. • TRENTON, N. J. • JAMESTOWN, N. C. (Highland Container Co., Inc.)**

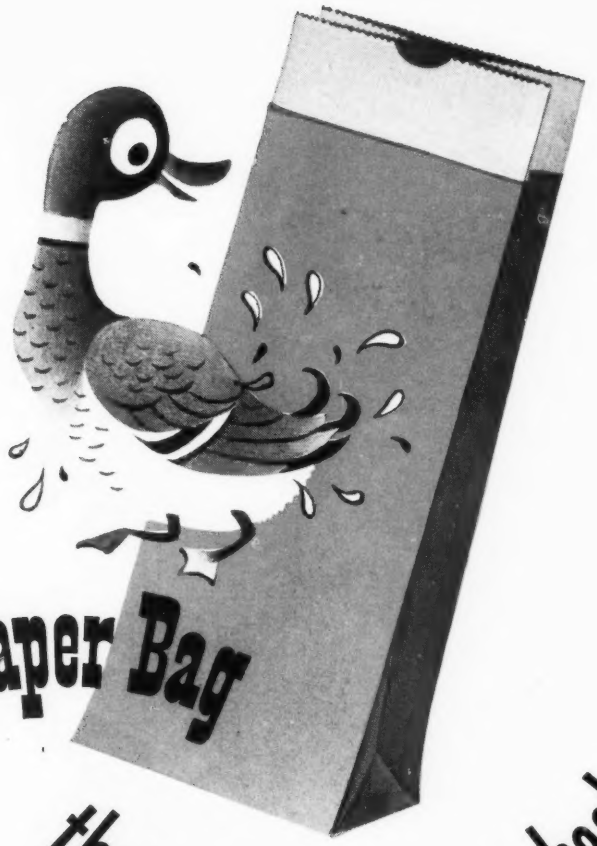
5 out of 8 buy Riegel

Five of the eight largest bakers of crackers and pretzels buy Riegel Papers regularly

Among the bakers of crackers and pretzels, and in many other fields, you will find that most of the sales leaders are regular Riegel customers. They buy from us simply because they know we can make packaging and industrial papers that combine technical excellence with economy and production efficiency. Their confidence in Riegel is an important reason why your company—whether large or small—should see if we can also help you. Riegel Paper Corporation, 342 Madison Avenue, New York 17, N. Y.

Riegel Papers

We produce over 600 different packaging, printing, converting and industrial papers. If we don't have what you want, we can probably make it.



The Paper Bag that's like a duck's back

Keep your product factory-fresh in low-cost paper packages that *seal out* air and moisture

If the package is important in moving your product off dealers' shelves . . .

If it must provide protection from air and moisture . . .

Then you need Flav-o-tainer®—the revolutionary new paper package that assures *vacuum-packed freshness at paper-bag cost*. Packers and manufacturers who have adopted it report sales increases as high as 700 percent!

Outstanding feature of Flav-o-tainer is its welded inner lining of air-tight, moisture-resistant PLIOFILM* or thermo-plastic material. There is no place for air or moisture to get in.

Yet Flav-o-tainer retains every space- and money-saving feature of an ordinary paper package. Its outer, paper wrapper gives you room for eye-stopping, sales-making design and color.

Flav-o-tainer is typical of Royal's ingenuity in producing packages that both protect and sell.

Royal makes packages for almost every variety of shelf merchandise, as well as all kinds of specialty bags and wrappers. Royal works with foil, film, Cellophane, and all papers—including coated, laminated, and heat-sealing. Royal prints by letterpress, rotogravure, and the economical Densatone process.

You are welcome to use the services of Royal's own design and engraving departments.

Before you place your next order for packages, check your requirements with Royal. Royal can meet them—with high quality at low cost.

Write, without obligation.

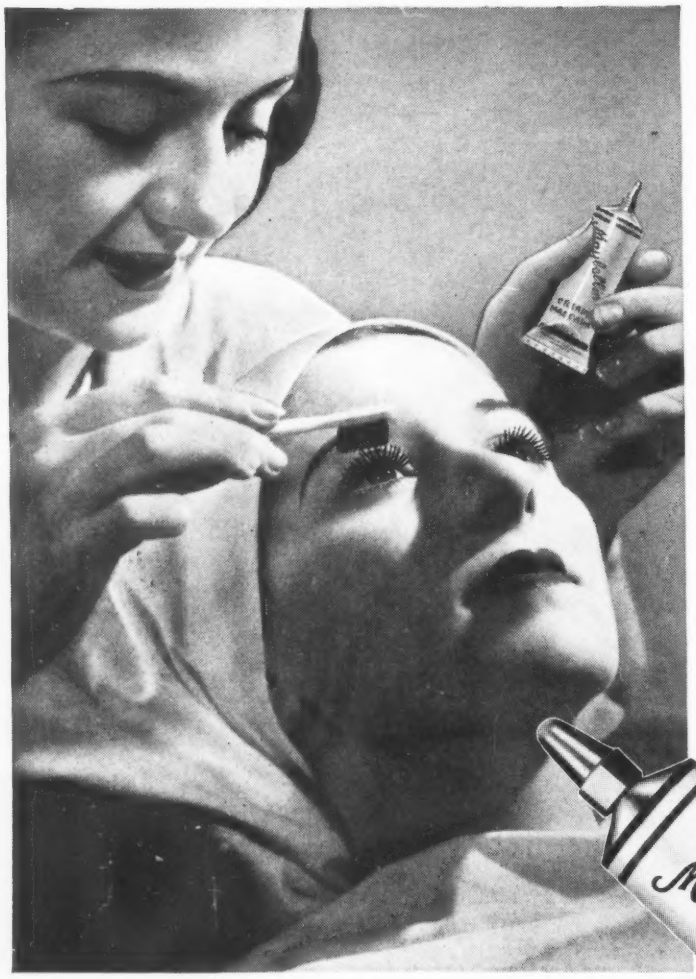
*T.M., The Goodyear T.&R.Co.

Printed and plain bags of every description for packaged products . . . from foil, film, and all kinds of paper.

THOMAS M. Royal & COMPANY

5800 NORTH 7th STREET • PHILADELPHIA 20, PA.

Offices in Principal Cities



Popularity WELL DESERVED

Here's another outstanding example of New England TUBES. It's significant that the leading manufacturer of cosmetics for glamorous eyes specifies these finer Collapsible Tubes. For, they are as popular with the consumer as they are with the manufacturer. Consumers prefer these ideal containers because they are easy to carry and keep . . no danger of messy breakage or spilling; handy to pack in travelling bag or hand bag. And the manufacturer likes their light weight which brings economies in shipping . . their sturdiness which minimizes returned goods losses. When you buy Tubes, be sure to *specify New England (Sheffield Process) Collapsible Tubes.* You'll prefer their pliable extra strength, their fine uniform quality, and the craftsmanship which assures outstanding tube decoration. Ask our nearest office today for prices, samples, suggestions. No obligation, of course.

● *If your tube filling facilities are inadequate, ship us your bulk product. We'll package it for you in tubes, jars, or tins, ready for distribution. This is only ONE of the EXTRA services available at NEW ENGLAND!*

New England
SHEFFIELD PROCESS
TUBES

NEW ENGLAND COLLAPSIBLE TUBE CO.

3132 S. CANAL ST., CHICAGO 16 • NEW LONDON, CONN. • W. K. SHEFFIELD, V. P., 500 FIFTH AVE., NEW YORK 18
T. C. SHEFFIELD, 7024 MELROSE AVE., LOS ANGELES 38 • C. W. MILLER, 151 COLE ST., SAN FRANCISCO 17
EXPORT DEPT: 500 FIFTH AVE., NEW YORK 18; CABLE "DENTIFRICE", NEW YORK

This may not be your problem . . .

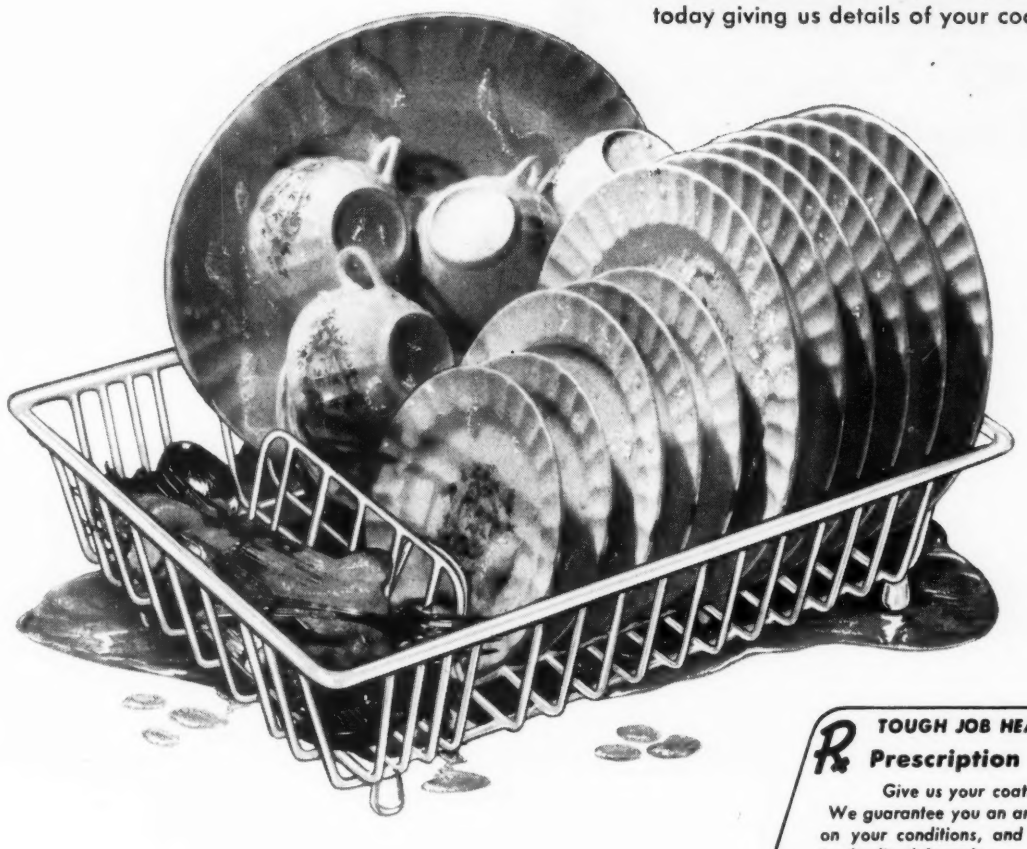
Watson-Standard

has developed an organosol type vinyl which offers greater advantages than the rubber latex coatings conventionally used on many products.

These include:

1. One coat application.
2. Curing cycle of approximately 15 minutes.
3. Relatively better stability.
4. All colors including pastels can be utilized.
5. Color retention is greatly increased.
6. Aging properties are much improved.
7. Increased production and lower costs are obtained through simplified application.

Watson-Standard Vinyl Coatings are rapidly replacing other coating materials. For complete information about how Watson-Standard prescription finishes can improve your product write today giving us details of your coating problem.



℞ TOUGH JOB HEADQUARTERS
Prescription Finishes

Give us your coating problem. We guarantee you an answer based on your conditions, and not just a standardized formula.

THE WATSON-STANDARD CO.

Manufacturers of
PAINTS • VARNISHES • INDUSTRIAL FINISHES AND LITHOGRAPH COATINGS

FACTORY AND GENERAL OFFICES: PITTSBURGH, PA.
WAREHOUSES: BOSTON, BUFFALO, DETROIT, NEW YORK

"SQUEEZABLE"

Clearsite*

polyethylene vial by Celluplastic

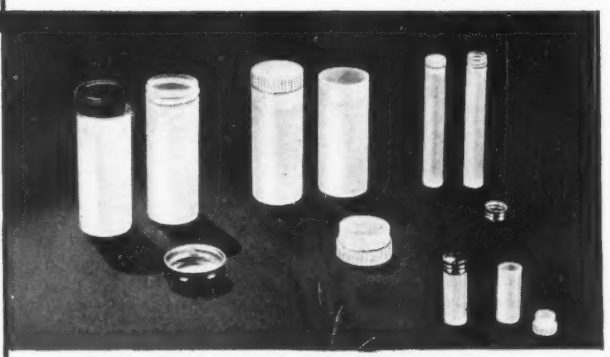
*Reg. U.S. Pat. Office

Clearsite flexible polyethylene and rigid polystyrene vials

are available in a complete range of stock sizes

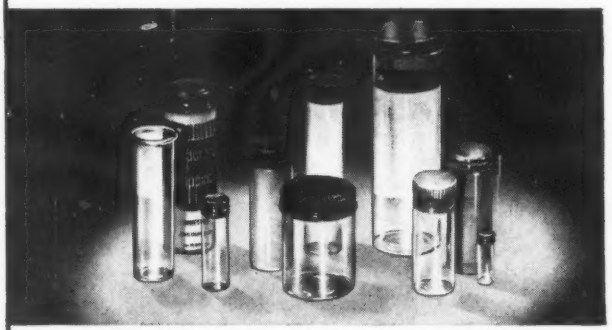
The deodorant container above illustrates one of many uses of Clearsite "squeezable" polyethylene vials. These vials, together with Clearsite rigid polystyrene vials, come in a complete range of stock sizes. Dependable uniformity for line production. All colors. Special sizes and shapes to order. Straight, threaded and beaded necks. All types of closures. . . . Clearsite vials are also produced in cellulose acetate, cellulose acetate butyrate, ethyl cellulose and all other thermoplastics. Use Clearsite vials to display, protect and *dramatize* your product. Write Celluplastic for samples, literature, additional information.

Sizes	Approx. Outside Diam. Length in M.M.	Screw Caps G.C.A. Standard M.M.
⅜" x 1¼"	12 mm x 30 mm	10
⅜" x 2"	12 mm x 50 mm	10
⅜" x 3"	12 mm x 75 mm	10
½" x 2"	15 mm x 50 mm	15
½" x 3"	15 mm x 75 mm	15
½" x 3⅝"	15 mm x 92 mm	15
⅝" x 2"	17 mm x 50 mm	18
⅝" x 3½"	17 mm x 88 mm	18
¾" x 2"	21 mm x 50 mm	22
¾" x 3⅝"	21 mm x 92 mm	22
⅞" x 2½"	25 mm x 62 mm	26
⅞" x 3½"	25 mm x 88 mm	26
⅞" x 6⅝"	25 mm x 166 mm	26
1" x 2"	28 mm x 50 mm	30
1" x 3"	28 mm x 75 mm	30
1" x 4"	28 mm x 100 mm	30
1¼" x 2"	36 mm x 50 mm	38
1¼" x 3"	36 mm x 75 mm	38
1¼" x 4"	36 mm x 100 mm	38
1¼" x 6⅝"	36 mm x 166 mm	38
1¾" x 3"	45 mm x 75 mm	48
1¾" x 5"	45 mm x 125 mm	48



CLEARSITE FLEXIBLE POLYETHYLENE VIALS

"Squeezable". Complete range of colors. 75% lighter than glass. Non-breakable. Translucent and opaque. Tasteless. Odorless. Not affected by alkalis, acids or alcohols. Can be printed in 1, 2, 3 and 4 colors.



CLEARSITE RIGID POLYSTYRENE VIALS

Sparkling, crystal-clear and gem-like colors. 70% lighter than glass. Shatterproof. Transparent, translucent and opaque. Tasteless. Odorless. Not affected by alkalis, alcohols or weak acids. Permanent label imprinted during manufacture.

"AMERICA'S #1 SOURCE FOR PLASTIC CONTAINERS"

34 Ave. L, Newark 5, N. J. • New York Office: 630 Fifth Ave. Circle 6-2425 • Representatives in principal cities.

Celluplastic CORPORATION Established 1919

Leakproof sealing

Finger tip opening . . .

High speed application

Vacuum Sealed

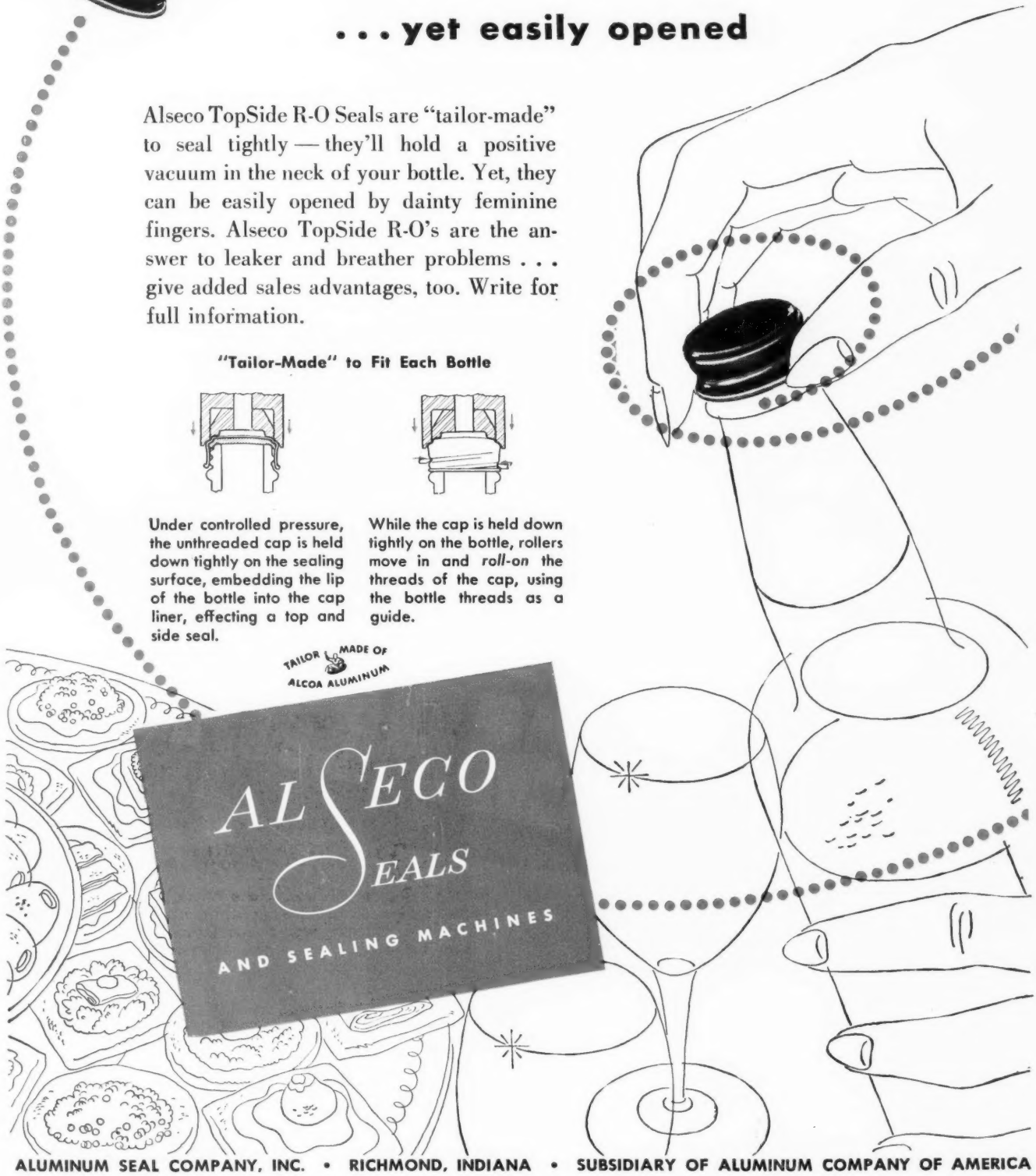
. . . yet easily opened

Alseco TopSide R-O Seals are "tailor-made" to seal tightly — they'll hold a positive vacuum in the neck of your bottle. Yet, they can be easily opened by dainty feminine fingers. Alseco TopSide R-O's are the answer to leaker and breather problems . . . give added sales advantages, too. Write for full information.

"Tailor-Made" to Fit Each Bottle

Under controlled pressure, the unthreaded cap is held down tightly on the sealing surface, embedding the lip of the bottle into the cap liner, effecting a top and side seal.

While the cap is held down tightly on the bottle, rollers move in and *roll-on* the threads of the cap, using the bottle threads as a guide.



ALUMINUM SEAL COMPANY, INC. • RICHMOND, INDIANA • SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

THERMALL

Does It Again...!

Electronic HEAT SEALING SIMPLIFIED

Simplicity of construction and design is the secret of THERMALL'S Model No. 12 outstanding performance in the sealing of plastic materials.

Here is a "PACKAGED" electronic heat-sealing unit, only 14" wide, 23" deep and 28" high, capable of making either a single seal 12" long x $\frac{1}{8}$" wide or two separate seals each 4" long x $\frac{1}{8}$" wide of either rigid or flexible plastic sheeting materials.

In the THERMALL Model No. 12, high frequency power is generated right where it is needed, at the load.

Interchangeable electrodes are available for sealing plastic folders, envelopes, pouches, billfolds, and all other flat articles, as well as rectangular plastic boxes and covers, sealing one or two corners simultaneously, (special 4 corner machine available) and also cylindrical tubes and containers in a wide range of sizes.

Let THERMALL solve your sealing problems, from the simplest to the most complicated.

For full information on the advantages and uses of the THERMALL Model No. 12, or for sample seals or demonstration, write . . .

W. T. La ROSE & ASSOCIATES, INC.

TROY, NEW YORK, U.S.A.

Only three months left
to get Your product all ready for Xmas . . .
and that means

Packaged BY Farrington

Farrington Manufacturing Company
GENERAL OFFICES: 76-P ATHERTON ST., BOSTON 30, MASS.
CANADIAN PLANT: FARRINGTON MFG. CO., LTD.
1191 BATHURST ST., TORONTO 4

WE HAVE IT!

In industry, as in gardening, its ability that counts. We are distinctly an "acorn to oak tree" organization.

BROOKS & PORTER 304 HUDSON ST. NEW YORK 13

PACKAGING AND DISPLAY SPECIALISTS FOR OVER FIFTY YEARS

Modern packaging

Vol. 22 No. 1 September 1948

ON LOCATION, "The Missus Goes a-Shopping" program with John Reed King is televised in a different supermarket once every week, each time by one of three sponsors—Sweetheart Soap, Bab-O and Mueller's Spaghetti. Instead of actual packages, black and white renderings on cards (shown at right) are used before camera to assure correct color contrasts.

WHAT ABOUT TELEVISION?

Rapid growth of this advertising medium poses a new consideration in package design. "Make-up" will take care of the color problem—but design elements must be kept simple

Television is racing ahead as a new facet of American life. On July 1 there were 31 stations in operation. At the end of the war there were not more than 7,000 sets; today there are nearly 450,000 sets and 700,000 are predicted by the end of the year. The list of advertising sponsors now totals 374.

In the television commercial, the visual impact of the package and the trademark have new significance. Spectator identification is so closely linked to recognition of the package that practically every commercial program for a packaged product is built around the presentation of the package.

What effect, then, if any, will television have on package design? Four years ago MODERN PACKAGING asked this question (see p. 59, April, 1944). Since then much experimental work has been done in video commercials and while techniques are still far from fixed patterns, much valuable information is available to the package

Jumbo packages are tele-genic

DUMMY PACKAGES in black and white are effective for use in live shows. These photos from Borden programs show Al Schacht, M. C., and Kyle MacDonnell of "Make Mine Manhattan" with large wooden dummy of Borden Instant Soluble Coffee, puppet of Elsie on a jumbo cheese package, Ringling Bros. midget with giant Lady Borden Ice Cream container. ALL BORDEN PHOTOS, JOE TAMMANY OF THE BORDEN CO.

designer who will be called upon to design packages with television considerations in mind and to the manufacturer who must obtain the greatest advertising value for his television dollar.

First essential is simplicity. A design that has strong bold lettering of product and trade name, uncluttered with detailed illustrative material, has the best chance of televising well. So far, no one in the television field seems to know of any packages designed or redesigned specifically for their appearance in television. Nor do those who have had the most experience in planning the television commercial feel that this is necessary, except when new packages are contemplated and greater simplification of design can be achieved in making the change-over.

Packages will continue to be, and should be, designed for their eye and color appeal on the store counter or shelf at the point of sale where the customer sees and purchases, it is believed, at least as long as televising is done in black and white. Color television may eventually change this situation, but at present it is too far in the future for serious consideration.

A knowledge of the basic principles of color and lighting in the television studio will help to explain this reasoning.

In black-and-white television, all of the colors are transposed into the gray scale. In the studios today, four types of light are used: mercury vapor, incandescent, carbon arc and fluorescent, each of which affects colors differently. Two types of iconoscopes (the television camera eye) are used: the red-sensitive "ike" and the blue-sensitive "ike," with respective effects on colors depending upon the type of lights used in the studio. Under incandescent lights, reds wash out in a red "ike" picture while blues wash out in a blue "ike" picture. Two entirely different colors may come out the same shade of gray. Colors suitable for store display may be complete washouts on the television screen.

Packages, therefore, like people, must be given a make-up treatment for their effective appearance over television. The degree of treatment depends on the design characteristics of the package and the colors involved.

Satisfactory results are being achieved by the three following methods:

1. *Actual packages*—Occasionally an actual package can be used in either a live or filmed commercial without much doctoring to illustrate some phase of product demonstration.

The Kraft mayonnaise package, for instance, which has strong black lettering of trade and product name, it is said, shows up very well in television without doing much to it. In other instances no special treatment is given to the package, particularly in such a scene as a man or a girl taking a cigarette out of a package and lighting it, which is to be followed by a close-up of the package to be illustrated on the television screen later.

There are cases, however, when the actual package is shown in use by the performers and must be specially prepared for the television camera. A good example was a box of Blackstone cigars used in an early commercial described by Chester W. Kulesza of the television department of Batten, Barton, Durstine & Osborn

advertising agency. The scene was that of an executive reaching for a cigar from an open box of Blackstones on his desk. When the scene was rehearsed, it was discovered that the Blackstone trade identification was nothing but a blur of grays on the screen. Lettering on the inside of the box cover did not show up. The reflection of the cellophane wrappers on the individual cigars was such that you couldn't see anything in the box. The situation was remedied by the preparation of a special cigar box on which the label was reproduced in black and white by photostat and strengthened by retouching. A sheet of white paper was placed below the first layer of cigars in the box to give outline definition to each cigar and the cellophane wrappers were removed to eliminate the reflections. The result was a clearly defined reproduction on the television screen.

The surfaces of packaging materials are often troublesome when using the actual package in the televised program, unless effectively treated. Shiny surfaces such as metal, aluminum foil, cellophane, plastic films and varnished cartons must be dimmed or dulled for effective television presentation. Reflected light from a coffee can once almost burned through a part of the television camera. Varnished Tenderleaf Tea cartons are dulled to eliminate the shiny surface for televising. All this can be done by proper handling by the art director of the advertising agency preparing the commercial or the company which prepares the filmed show.

The sponsor of television programs should also know that mass displays of packages are almost impossible to shoot effectively because of the fading out of many colors or because several different colors may appear in the same shade of grayness. This is due not only to the previously mentioned types of lighting in the studios and the two types of "ikes" which transpose color, but because the television gray scale has a shorter contrast range than present photographic media. The former has only about five shades of gray from black to white, in contrast to 10 shades of gray used in photography and printing.

One of the breakfast-cereal sponsors discovered this when a mass display of the packages was used before the camera. When it went over the air, there was nothing but a blur. Such disaster illustrates the importance of careful program planning and experiment in rehearsal, because once the program is on the air there is nothing that can be done to correct it.

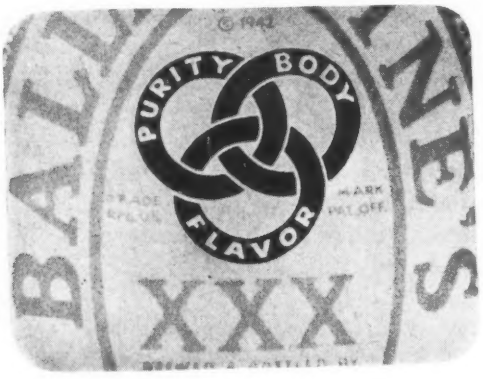
2. *Dummies*—The close-up shot of the package is a "must" in almost every commercial video program to assure identification. This must be so powerfully presented on the screen that it impresses itself on the mind of the viewer.

For this purpose, particularly in live shows, many

Part of the show

TEXACO'S PITCH MAN, Sid Stone, works package demonstration into his act. Black and white dummies of Marfak and Havoline are used for the show. With sponsor identification as high as 95%, Texaco Star Theater has had some of the highest ratings among current television shows. PHOTO COURTESY KUDNER AGENCY, INC.

Trademark "natural" in filmed commercial



BALLENTINE'S THREE RINGS are an excellent example of trademark design that can be animated in the televised motion-picture cartoon—something to think about when planning symbols for packages of the future. Three top pictures show three uses of the "rings" in motion, which fade into a close-up of the symbol on the label, followed by still shots of the packages, using one of the three bottom illustrations, depending on what the commercial is featuring, either beer or ale in cans or bottles. PHOTOS COURTESY PATHESCOPE CO. OF AMERICA, INC.

sponsors used a third-dimensional dummy of the package specially prepared for televising. Such dummies are usually made to look exactly like the actual package translated into black and white by photostatic methods and strengthened for gray contrasts—when this is required.

The pitch man in the Texaco television program uses black-and-white dummy containers of Marfac and Havoline which he takes out of his suitcase to illustrate the packages to spectators. The Borden Co. for its Instant Soluble Coffee commercial used a large black-and-white coffee jar simulating the actual package, but in reality a wood-turned dummy to look like a glass jar with label and painted cap. The advantages of the three-dimensional dummy for the live show are obvious, particularly when it is used in the hands of a performer. Trade identification and product name are sharply defined so that there is no chance of lettering or other identification looking fuzzy and busy as is sometimes the case when the actual package of the product is used.

3. *Two-dimensional illustrations*—Another very common practice is the use of flat photostatic or black-and-white line illustrations of the package for the close-up shots.

For live shows such as the commercial prepared by the Duane Jones Co. for Sweetheart Soap, Mueller's Spaghetti and Bab-O, which sponsor jointly "The Missus Goes a-Shopping" program, the line illustrations are prepared on cards that can be placed before the television camera wherever the program is being held. This is a very convenient method for the flash-in close-up when the programs are televised on location. This show is always put on the air from an actual supermarket.

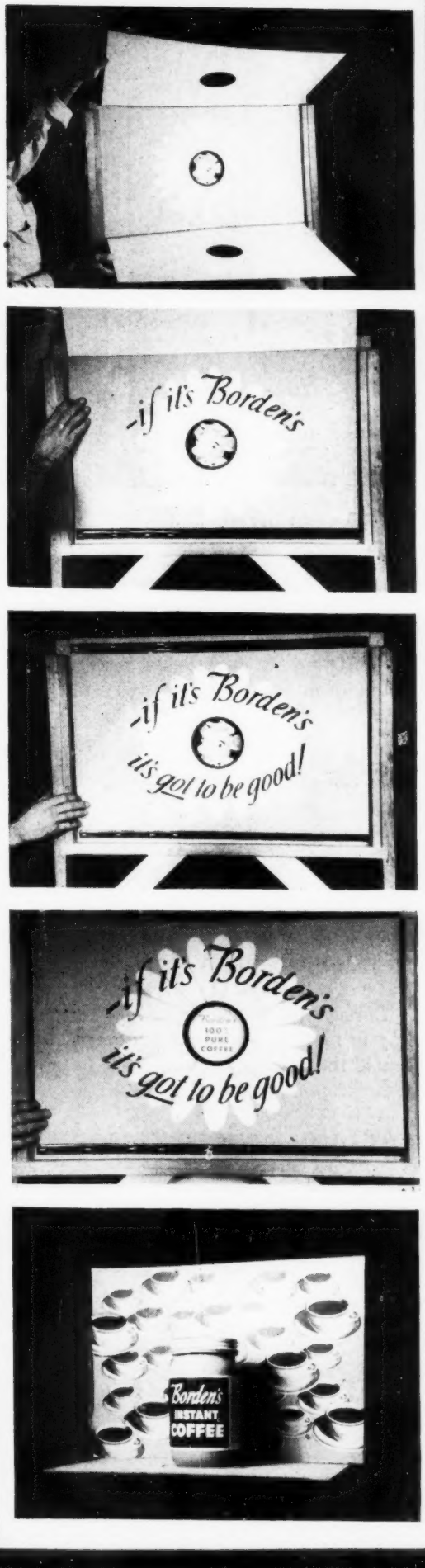
Black and white renderings are used most effectively to illustrate the package in most of the filmed commercials, whether they are animated cartoon technique or motion picture photography with flash-in "stills" of the package.

Such renderings assure clear and accurate presentations of the package. They require several steps in their preparation, usually starting with a black and white photograph of the package, retouched and rephotographed to give just the proper variations of black, white and gray contrasts.

Packages in the commercials

To most advertising agency heads responsible for television commercials, the preparation of the package for effective visual reception is a purely mechanical art-

Cards for brand identity



SLOGANS and brand identity can be introduced in the television commercial by a series of cards, specially prepared in black and white, placed consecutively before the television camera. This sequence shows how The Borden Co. uses this technique to emphasize "If it's Borden's, it's got to be good," leading up to presentation of Instant Soluble Coffee package—in this case a large black and white dummy jar.

Easy to buy, easy to carry . . . *Sturdy and compact . . .* *Holds 4 factory-tested GE bulbs . . .*

VISUAL DEMONSTRATION in television offers a powerful means of presenting the use features of a package. Imagine what could be done to show the advantages of the polyethylene squeezable bottle—or the self-coloring oleomargarine package. Brooke Taylor's demonstration (above) of General Electric's four-bulb pack over WEWS between innings of the Cleveland baseball games is one of first examples on the air.

production problem. Effectiveness of the package design depends on how good the design is in the first place. The symbol of that design can be easily reproduced on the television screen, if care has been taken to prepare it properly for the conditions of the studio and the television camera.

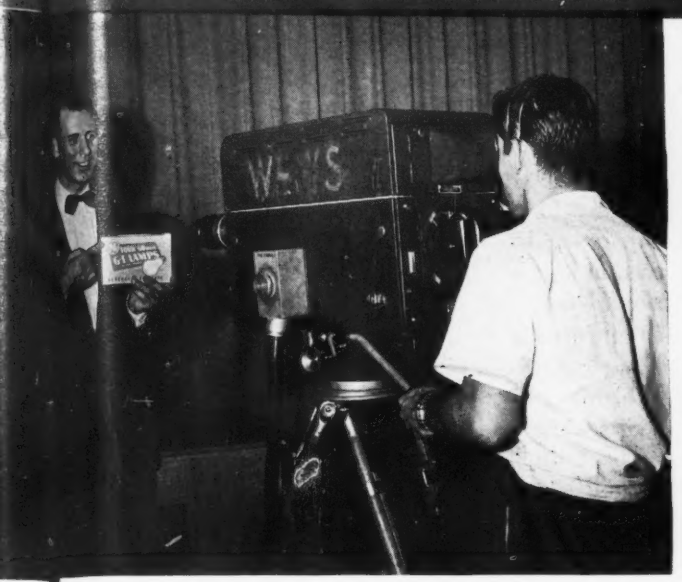
The biggest worry is introducing the package in the commercial so painlessly that the spectator will look at it and concentrate to get the message. Many techniques have been tried:

1. *Package on turntable*—to show a close-up of a dummy in motion, usually accompanied by a demonstration of the product in use.

2. *Animation*—either trade characters, such as puppets of Elsie Borden and her family introducing the package with appropriate product sales message or animation of the package itself on a film strip, such as on the Jello program, in which the letters move into position on the face of the package followed by six puppets who pop up behind the packages to designate the six flavors.

3. *Plant production story*—usually on film, telling a quality story of how a product is made and packaged. Birds Eye-Snyder has made effective use of an existing film for this purpose showing how frozen foods are produced and packaged.

package convenience story



Stops bulb snatching . . . Look for . . . *the GE monogram when you buy.*

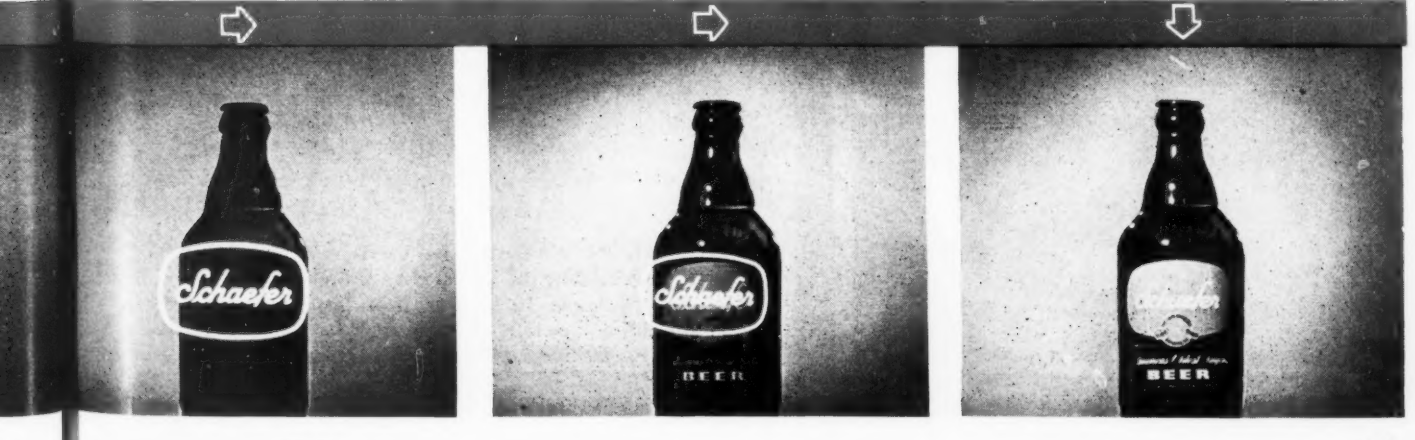
4. *Human-interest story*—such as a little boy with a candy bar sitting on a curb with his dog, reluctantly sharing half the candy bar with the dog, followed by a close-up of the wrapper as the boy throws it away to show brand name.

5. *Integrated show spot*—in which the commercial is worked in as part of the show. Texaco's pitch man is a perfect example of this as he intersperses his gags with just a few short plugs for Marfac and Havoline motor oil when he takes the packages out of his suitcase.

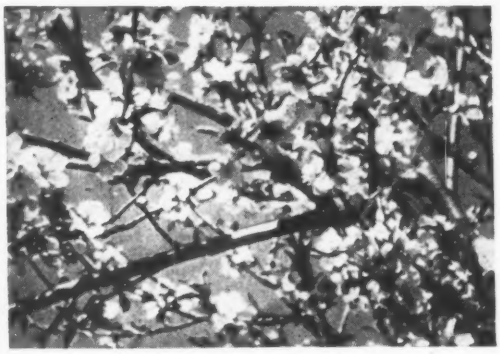
6. *Use features of the package*—to demonstrate a new selling feature of a package. Among the first examples is the sequence used by General Electric with its sponsoring of the Cleveland Indians to tell the convenience story of the recently adopted four-bulb pack of Mazda lamps, getting over the "Don't be a bulb snatcher" story, the easy handling of the four-bulb pack—easy to purchase, easy to carry and easy to store in the home without breakage. This program was prepared by Mr. Kulesza and Jim Campbell of BBDO.

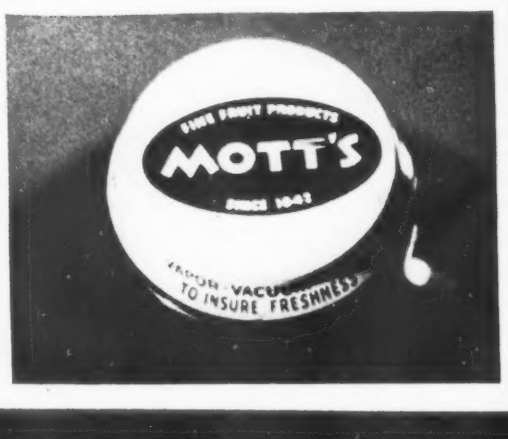
Television will also be a wonderful medium to get over visually such ideas as the story of the self-coloring margarine package—the one which permits the consumer to knead the coloring matter into the margarine right in the bag. Package innovations like the squeezable polyethylene bottle with its atomizer features and its unbreakable characteristics are also naturals for television. Think, too, what a wonderful medium television would have been to get over the story, in its day, of the cellophane tearing tape on cigarette packages. In the future, many convenience features of packages will be demonstrated on television, such as easy-opening

IDENTITY of Schaefer name is established quickly in televised filmed commercial that shows trademark as though moving through space until it fits over symbol on bottle label. Sequence is achieved by series of super-impositions on still photos of bottle. PHOTOS COURTESY BATTEN, BARTON, DURSTINE & OSBORN, INC.



Quality Appeal





devices, dispensing features, storage features for the refrigerator or the bathroom shelf, or re-use angles such as the new polystyrene closure for Swift's peanut-butter jar (see page 101, this issue) which later becomes an iced-drink coaster.

7. *Animated trademarks*—the trademark can be a very important feature of the television commercial and perhaps will deserve much more attention from designers in the future for its animation potentials. A current video natural is the Ballantine symbol of three interlocking rings for "body, purity and flavor." Illustrations accompanying this article show how these three rings are used in animated film commercials with Ballantine-sponsored sport programs to get across the trade symbol as an introduction to the showing of the package. In one commercial, a pitcher makes the three rings with three throws of the ball, each time making a circle. The three circles then fade into a close-up of the label, which moves back until you see the entire bottle of Ballantine's Ale beside a sparkling, appetizing glassful of the same. Another film shows a clown making the three rings; a third introduces an animated train, the engine of which puffs out the symbol in three smoke rings. Pathescope Co. of America, producer of the films for Ballantine in cooperation with the J. Walter Thompson Co., and an old-timer at commercial movie short production, has been experimenting with filmed commercials for television since 1941. Pathescope believes that many familiar old trademarks have equal possibilities for animation.

Conclusions

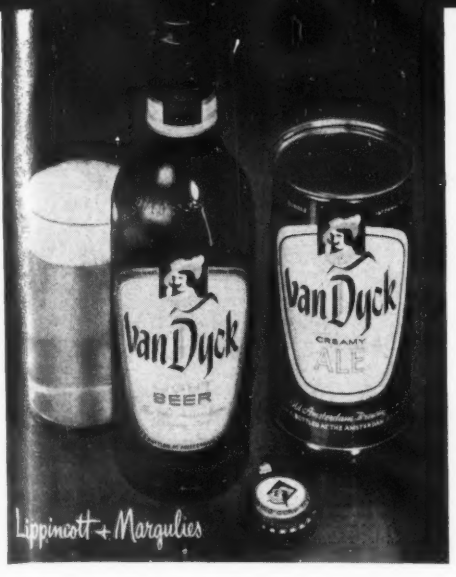
Television is a combination of motion pictures, radio and space advertising and offers one of the most powerful advertising mediums to acquaint the public with the package and its features. Its phenomenal growth in the last year and a half is an indication that your package may be up before the "ike" within the not too distant future. Sooner than that, however, it may be up for redesign. Or you may be redesigning new packages for new products. It will be worth while to consider these design programs from the standpoint of the possibilities of its use in television.

The conclusions which have been reached to date may be summed up as follows:

Design first for effectiveness of color at the point of sale, but keep the designs simple for good visual reception and don't overlook the possibilities of your trademark for animation.

Make the most of the visual power of television commercials for putting across striking convenience or use features of your package.

ACTUAL PACKAGES were used in this filmed sequence telling the orchard-to-store-shelf story of Mott's Apple Juice, but close-up of cap is a photo of a specially-prepared black and white dummy. PHOTOS COURTESY YOUNG AND RUBICAM, INC.



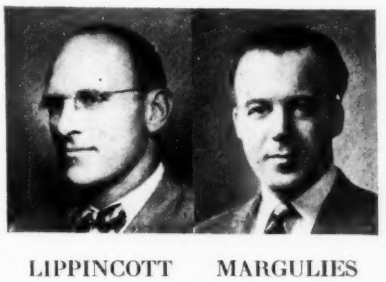
This month's COVER PACKAGE*

No. 21 of a series

THE PROBLEM: An established brewery, famous for its draft beers, is presumed to be launching packaged beer and ale for the quality market. The brewer has decided to simplify his bottling problems by entirely eliminating bottle collection and re-use, confining his packaging strictly to one-trip containers. A survey has shown that certain sectors of his market—particularly the on-premise dealers—prefer bottled brews and others prefer canned. His problem narrows down, therefore, to selection of a trade name and label design that will be equally adaptable to the new $8^1/_4$-in. non-returnable tavern bottle and the conventional beer can. The package designers and the advertising agency in joint conference with company sales and advertising executives agree that the label design must be one which will both stimulate original sales and encourage repeat sales.

THE SOLUTION: Further conferences establish agreement on the trade name "Van Dyck." It is short, familiar, rememberable, and with its Old World background—traditionally associated with fine brews—it will provide abundant inspiration for historical and pictorial advertising and promotional material. The designers have created as a trademark a stylized head of a nobleman, which bespeaks quality and is a natural visual association with the Van Dyck name. Skillful handling of motif and color in the finished design avoid the triteness which might have resulted. The impression of distinctiveness is first apparent in the simple, clean and tasteful arrangement of design details against pure white within the unusual label shape. Tonal changes from dark to light are climaxed with strongest contrast between the calligraphic Van Dyck logotype and the white background. It will be noted that the design is equally adaptable to the die-cut paper bottle label and to direct lithography on the can. Colors and values have been kept in a range that will reproduce effectively in either color or black and white in ads and on television.

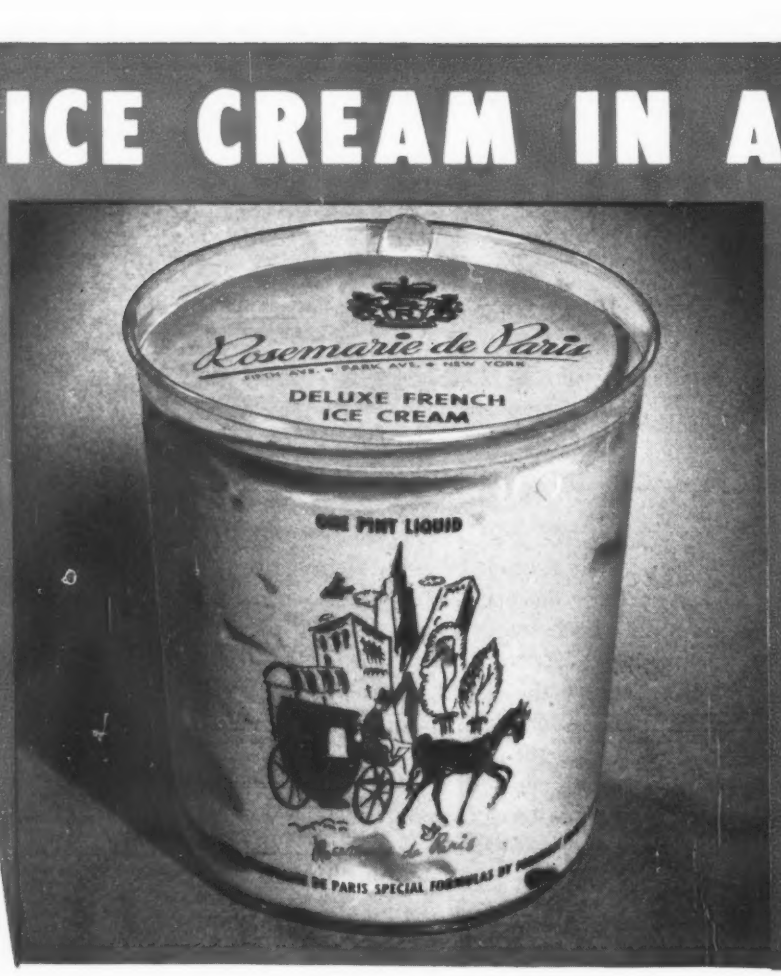
THE DESIGNER: J. Gordon Lippincott and Walter P. Margulies, partners in the widely known New York design firm of Lippincott & Margulies, have drawn from their diversified experience a lesson they often emphasize: that the crucial phase of package design comes prior to actual conception, when client and designer get together to explore and define the problem. Their conviction of the importance of this preliminary study and orientation is buttressed by the many top-selling packages now on the market on which they have used this technique. Among their packaging clients, past and present, are Mead, Johnson Co., L. E. Waterman Co., National Oil Products Co., Fuller Brush Co., Foxhead Brewing Co., The B. F. Goodrich Co., Champion Spark Plug Co. and F. W. Fitch Mfg. Co. Norman A. Schoelles is vice president of the firm in charge of the package-design department.



LIPPINCOTT MARGULIES

* Brand and company names used in the hypothetical design are purely fictitious; the design remains the property of the designer who conceived it for this cover illustration. Any resemblance to any existing package is purely coincidental.

ICE CREAM IN ACETATE



A new triumph for the transparent package is the de luxe container Rosemarie de Paris adopts for America's favorite dessert

PAIL-SHAPED PACKAGE is made of 0.0075-gauge cellulose acetate sheet, beaded top and bottom, cemented down the side and with cemented-in disk base. Groove formed just below top accommodates snap-disk lid of paperboard with thumb tab. Mouth-watering colors of basic flavors are visible through container, giving impulse sales appeal. Rosemarie de Paris coach is printed on container in red and black.

Rosemarie de Paris, New York luxury confectioner, has introduced a new French ice cream in a rigid transparent container, the first of its kind to be used as a consumer ice cream package—and one that costs about six times as much as a conventional paper container.

When this firm, known for its quality candies and cakes, decided to market a fine ice cream (85 cents a pint), they wanted a container that would definitely set this product apart from other types of ice cream. Because they were marketing a de luxe product, they also felt they could afford a de luxe package.

The luscious colors of the basic flavors—vanilla chocolate, coffee, strawberry, pistachio—immediately suggested the idea of a transparent package through which the customer could see the product.

Nobody had used a transparent container for ice cream, but that was no reason why it couldn't be done. Acetate had long been used for food products The company was using a cylindrical acetate container for one of its candies. This gave the idea of trying it for ice cream. But the straight cylindrical shape, they felt, did not have the eye appeal of the pail-shape package usually associated with ice cream. They went to the supplier of the candy container. Could he make them a transparent acetate container in the conventional pail shape of ice cream containers?

He came forth with a pail package, made of 0.0075-gauge cellulose acetate, beaded top and bottom, cemented down the side and with cemented-in disk base. The rim is formed with a recessed groove to accommodate a snap-disk lid of paperboard with thumb tab for opening, similar to the conventional paper container. A line illustration of the famous Rosemarie de Paris coach—a familiar traveling trademark on New York streets—is printed on the acetate in red and black and enhanced by the background of the ice cream showing through the transparent container.

Testing of performance was under the direction of Glenn E. Marlatt, manager of Foremost Dairies, which makes ice cream by special formula for Rosemarie.

Although acetate sheet has long been accepted for food packaging, Mr. Marlatt first obtained statements from manufacturers of this material to substantiate its suitability for use in contact with ice cream, but made his own tests to prove that the plastic material would

not affect the taste of the ice cream. This was done by rubbing the ice cream onto the material. He found that there was no taste from ice cream rubbed over acetate, which is sometimes not the case in similar tests using treated paperboard. Since the acetate does not support mold growth, there was no biological problem other than is usual in the dairy industry. The only production difficulty encountered was that the acetate containers required a little more careful handling than paper containers of the same shape. The acetate, if dented, will normally snap back to its original shape, but care must be taken that no dents are allowed in the containers when they are filled and put into storage at zero. If the ice cream hardens with a dent in the container, then the dent cannot be removed easily and ruins the appearance of the package. The containers have shown good resistance to heat and cold without cracking.

Filling is done on a semi-automatic line, but the company is studying fully automatic methods for the future. One production problem not completely solved is the fill cut-off to give a neat appearance to the top of the container. This was one reason why the paperboard snap disk was adopted. Eventually, the firm hopes to use a transparent cover, perhaps of the slip-on, friction type, if the ice cream can be leveled neatly by machine to show through the cap.

First containers tested had metal bases, but further development by the supplier eliminated the use of metal, which the company felt might not be acceptable to consumers in contact with ice cream.

The new transparent ice cream packages are now on sale in all the Rosemarie de Paris shops in New York, Washington and Philadelphia. Because of the character of the shops, making it difficult to fit refrigerated cases into the stylish French decor, the ice cream is shown at present only in dummy display. At Strawbridge & Clothier, Rosemarie agents in Philadelphia, however, the packages are being shown in open cases.

For shipment from the dairy to the Rosemarie stores, the transparent packages are placed in outer boxes. When sold over the counter, each pint is put in a Jiffy bag with dry ice for take-home. Eventually, as supply conditions permit, the company plans to put the transparent containers in cylindrical cartons with dry ice.

When kept in storage or packed with dry ice, the containers will not fog from outside condensation. They will fog if left several minutes at room temperature. This is no disadvantage, however, the company feels, because people do not usually keep a package of ice cream at room temperature for any length of time.

The container is an exclusive for Rosemarie.

CREDITS: *Container, Weinman Bros., Chicago. Acetate, Eastman Kodak Co., Rochester, N. Y. Snap disks, Liby-Tulip Cup Corp., New York.*

POLYSTYRENE CLOSURES RE-USABLE AS COASTERS

Newest of the re-use ideas in packaging is this polystyrene closure which becomes an iced-drink coaster.

Swift & Co. introduced their new, high quality peanut butter in 12-oz. glass jars topped with these practical covers. They come in four colors —red, amber, natural and cocoa brown.

The jar and cap follow a "nesting" principle of design that permits use of the container in building sturdy floor or shelf displays in food stores.

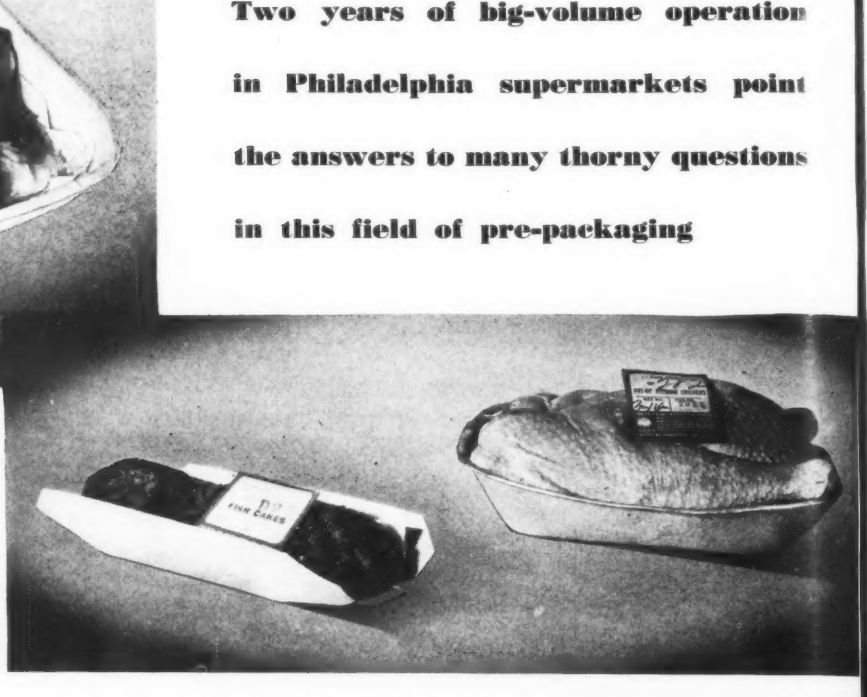
The closures, injection molded in two eight-cavity molds, are made expressly for Swift & Co. The jar is specially designed to accommodate the plastic closure. Because of the depth of the cap, it was necessary to allow extra space between the lug and the shoulder of the jar. A tight seal is obtained by using a rubber gasket between the closure and the jar top.

CREDITS: *Closure molded by Federal Tool Corp., Chicago, using Dow's Styron. Jar, Hazel-Atlas Glass Co., Wheeling, W. Va.*

PENN FRUIT'S

Two years of big-volume operation in Philadelphia supermarkets point the answers to many thorny questions in this field of pre-packaging

MOLDED PULP trays with cellophane overwrap have been found most suitable by the company for machine wrapping 75% of their self-service fresh meats. Only roasts are wrapped by hand. Trays are used in three sizes; stack well in cases. Wrapping has been removed to show the tray clearly.



PAPERBOARD BOATS and boats of molded pulp for the cut-up poultry and pre-cooked delicatessen items have deeper sides than the trays. All meat and poultry pre-packaging is done at the individual stores. Codes visible on labels are stamped on as the merchandise is weighed and wrapped and indicates price per lb., day packaged and packer.

While much of the emphasis in retail pre-packaging is currently directed toward problems encountered in pre-packaging fresh produce, there is on the other hand just as serious an attempt to learn the answers to questions about pre-packaging of fresh meats. Some of the problems are the same for both fresh meats and fresh produce; others are peculiar to only one. This report is concerned with what the Penn Fruit Co., Philadelphia, has discovered in its two years of pre-packaging fresh meats at the retail level. Why Penn Fruit is pre-packaging fresh meats, what innovations they have adopted, how they do it, how much it costs, are discussed because Penn Fruit Co.'s experience throws some revealing light on these questions. The company has made information available to MODERN PACKAGING which heretofore has not been published.

Penn Fruit Co. has 12 gigantic self-service stores in Philadelphia. In five of them meat, poultry, pre-cooked foods and delicatessen items are pre-packaged for self service. A new unit being opened this month will also have self-service departments for these items.

The company started its first self-service, pre-packaged fresh meat operation July 20, 1946, with one pilot store. Since then, as the company has learned new techniques and improved old ones, self-service meat and delicatessen departments have been set up in the four stores. In some instances the store had to be remodeled to provide the back room space necessary for the cutting, weighing, pricing and wrapping lines. In two stores, opened after the first pilot store operation had shown which production line set-ups were most efficient, the space for these operations was included in the blueprints. The individual units now average 700 sq. ft. of cooler space, 1,250 sq. ft. of cutting, pricing and wrapping space, from 62 to 84 lineal feet of refrigerated counters for meats, poultry and pre-cooked foods, and 48 lineal feet for the delicatessen items.

The company's reason for pre-packaging fresh meats may be summarized by the word "bottleneck." Penn Fruit's operation, according to James Cooke, general manager, "is predicated on a weekly tonnage per store of 50,000 lbs. of fresh meat and poultry, smoked meats, cold cuts and delicatessen combined." Shoppers waiting at service counters for clerks to wait on them delayed the customer turnover which, in turn, cut down on the volume of sales. If meat could be sold self-service, the stores could handle larger volume because of the quicker turnover of customers.

However, in switching to self-service selling of pre-packaged meats, the company found that (1) the back room activities of cutting, weighing, pricing and wrapping had to be coordinated to take care of the slow

MEAT PACKAGING

hours and the rush hours, (2) the increased traffic past self-service meat refrigerated display cases demanded more aisle space and (3) check-out facilities had to be in balance so that customers would not lose the time gained from the self-service arrangement waiting at the check-out counters.

In the light of Point 1, why isn't the pre-packaging done centrally? Penn Fruit's quality control director, Ben Arnold, expresses the reason in terms of quality. "We found that self-service meats," he claims, "regardless of the packaging materials used, lose their 'bloom' rapidly and although a centralized cutting and packaging set-up might be a more efficient production arrangement, the quality of merchandise can be more closely watched when pre-packaging is carried out continuously in the various units."

The company's strict adherence to freshness as the prime quality factor has many ramifications which

TAILORED WRAPS of cellophane for cheese and cold cuts are done by hand. Penn finds it more efficient and economical to wrap these items by hand, as machine wrapping would require a board backing. Cold cuts with high pork content and sliced baked ham have inconspicuous parchment paper backing for protection during heat sealing.

pervade the entire pre-packaging operation from choice of packaging materials, code labeling and production lines to costs and merchandising.

Packaging materials

After testing several types of containers for meats, Penn Fruit has chosen a shallow, rectangular, molded pulp tray as the most satisfactory type for machine wrapping. Approximately 75% of all the packaging for fresh meats and poultry incorporates the use of this type of tray with a transparent film overwrap. Three sizes are used: 10 by 5 by 1 in., 8 by 5½ by 1 in. and 5 by 5 by 1 in. The trays permit maximum visibility of the contents while the ¼-in. thickness of the pulp is assurance that the heat from the sealing block of the wrapping machines is absorbed quickly before reaching the meat. For pre-packaged cut-up fresh poultry, which is 100% machine wrapped, a molded pulp boat with deeper sides is used and also a wax-impregnated paperboard boat, similar to lard and butter boats. These are used in 8-in. lengths. The same types are also used for the pre-cooked foods which are packaged at the units after being cooked in one central kitchen located in the Erie Avenue store. Delicatessen items such as salads, baked beans, cole slaw, etc., are packaged at the central kitchen in conventional cylindrical waxed paperboard containers with cellophane-window lids.

Different types of cellophane and cellulose acetate films are used as recommended by the suppliers. For red meats MSAT-80 cellophane is used; LSAT-300 cellophane for delicatessen cold cuts. A parchment paper liner is usually added to the bottom of the molded trays for extra protection.

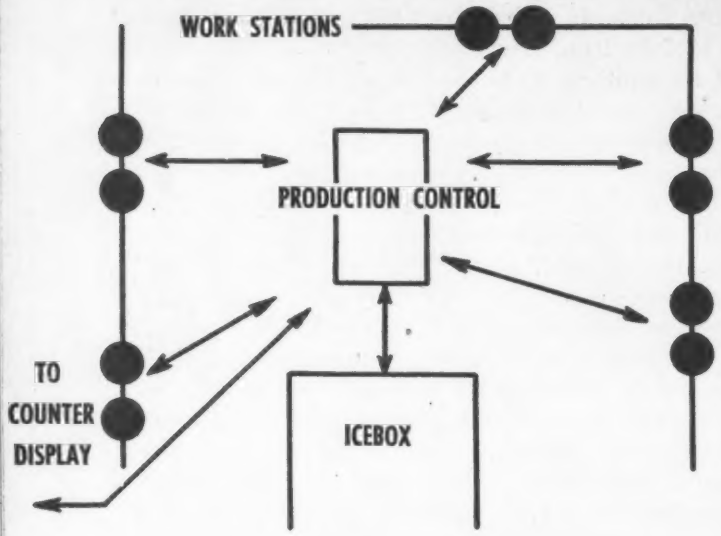
How much fresh meat is machine wrapped and how much hand wrapped? At the recent convention of supermarket operators Mr. Cooke said, "While hand-wrapping appears to be adequate in departments handling up to 20,000 lbs. of fresh meats [per week], our production bogged down beyond this point. It seems that when you get beyond 20,000 lbs. it is impossible to get the merchandise out on time by hand wrapping. We found it impossible to crowd enough employees in the space and time available to get the merchandise out. With such an unwieldy group it was very hard to achieve any pace or supervision. To cope with this problem we have installed automatic wrapping machines in all our self-service meat units.

"The machine-wrapped package does not compare in appearance with the neat, tailored, hand-wrapped product. The time and expense factors, however, make hand wrapping impractical beyond this 20,000-lb. point. In fresh meats we use a machine to wrap 75% of our packages. Roasts are hand wrapped.

"In the case of luncheon meats it has been our ex-

This is one of three articles in this issue dealing with current developments in meat packaging at packer, distributor and retailer levels. Following this article, on p. 108, is "Packers' Frozen Meats," discussing research and experimentation in that field, and on p. 113 will be found "Wrap-Cartoned Steaks," discussing the success that one frozen foods distributor has had with a well-packaged specialty item.

WORK-FLOW IN HORSESHOE ARRANGEMENT



DOUBLE HORSESHOE packaging-line layout is favored by the company as an efficient arrangement from a traffic standpoint. Diagram shown at the left illustrates the work flow in each horseshoe. Above is view of meat-packaging horseshoe as modified at the Erie Ave. store. Partition in background separates meat packaging from delicatessen.

perience that hand wrapping is faster. The machine requires cardboard backing. Cost of the board and the labor involved make this impractical—not to mention the loss of visibility."

Penn Fruit has learned from experience that customer preference in package sizes is toward smaller ones in self-service than in service selling. Although the range in sizes is wide, proportionately more of the packages are kept smaller. The popularity in sizes even varies from the first part of the week to the end of the week. For example, in cold cuts the individual packages weigh on an average between 1/4 and 1/2 lb. Monday, Tuesday and Wednesday. As the week-end approaches packages weighing 2/3 to 3/4 lb. are preferable. Because most of the cold-cut and cheese packages are small, the price-conscious housewife—the company has discovered—will often buy more of them, getting a wider variety than at service counters.

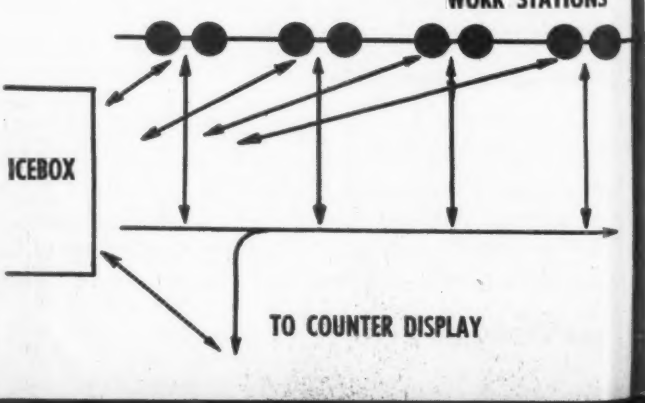
Code labeling

Labels—paperboard squares and triangles put loose in the package before the wrap is added—have the price and weight of the package written in by hand at the time the item is weighed. In addition, a code is stamped on them that indicates the day the package was wrapped, the wrapper and the price per pound. This code marking, a phase of the quality-control procedure, was adopted at the beginning of the pre-packaging experiment as soon as it was discovered that if the date only were given, shoppers would pick only the packages with the most recent date.

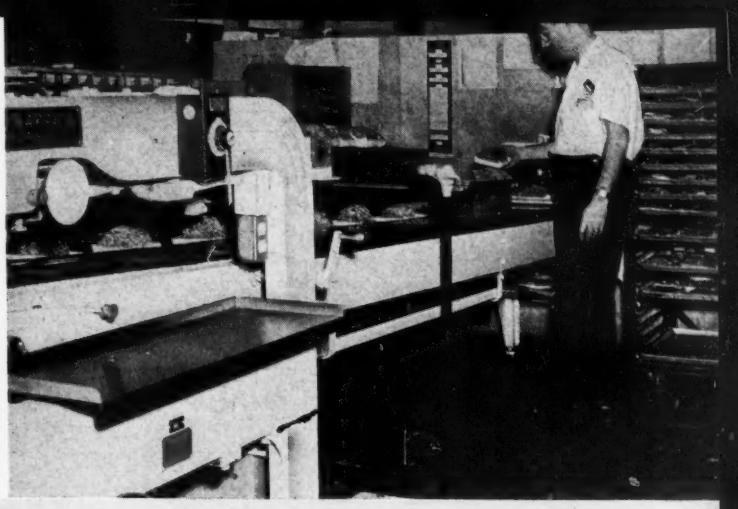
In conjunction with the code marking, code charts are set up, explaining the purposes of the code to the employees concerned and listing the expiration periods for different meat and delicatessen items. The length of time a package may be kept varies, obviously, according to the kind of product. Offal items are on a fresh daily cycle; they are never carried in package form from one day to the next. Any meat merchandise still unsold on the evening following the packing date, according to the policy chart kept in the meat department's back rooms and illustrated on p. 106, is to be opened up and examined by the department manager. Penn Fruit has found that the following items can be kept packaged for two days: souse, head cheese, blood pudding, fresh sausage, midget salami (in piece), smoked tongues, picnic shoulders, baked ham (in piece), corned beef, boneless hams, luncheon tongues and Canadian bacon. At the expiration of four days, piece bacon, American cheese, Polish sausage, hot sausage, bologna and liverwurst (in piece), liver caps, knockwurst, skinless frankfurters and smoked butts packages must be opened and inspected. Except for these items, all delicatessen packages are opened up on the second evening following the date of packaging. Acetated cheese, cut and wrapped in the stores, have a seven-day package period. Salads and cooked foods packaged in the store are in the daily group.

When the packages are opened and inspected, the contents may be rewrapped if in good condition, but it is

STRAIGHT-LINE WORK-FLOW



DELICATESSEN packaging section of the double horseshoe arrangement at the Erie Ave. unit as it appears from the partition which divides the two packaging lines. Wrappers and weighers work in teams at the scales and heater blocks around the rim. Work progresses from the slicers at the right to girls at the left. Cooler rooms are located at the rear.



WRAPPING MACHINE in the meat packaging section can handle 60 packages per min. automatically. Operator need not move, since unwrapped packages are fed into the machine on lower intake conveyor, moving from right to left, and return to him completely wrapped on the upper conveyor, ready to be replaced on trays for the dollies.

the manager's responsibility to decide whether the merchandise is to be rewrapped, trimmed, repriced or discarded. In the case of salami, tongues and hams, the rewrap is necessary because of shrinkage. Labels must be made out to show new weight and price. If the product is rewrapped, this fact is indicated on the new label. At the present time rewraps are running about 10% on cold cuts with high pork content because of "fading" and on roasts, according to Mr. Arnold.

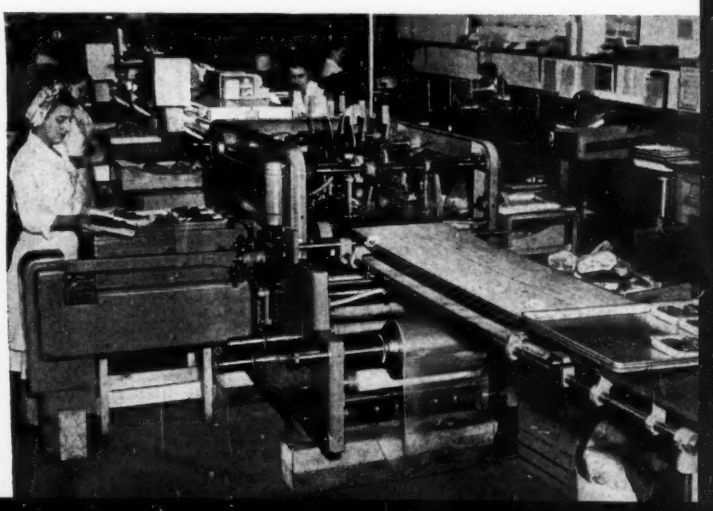
Rewraps are kept low by reducing the amount of light exposure on meat items, keeping the cases from being overloaded and keeping a very accurate record of the number of rewraps. If the rewrap score is too high, the meat department manager checks the packaging operation to make sure that the packaging is being done carefully, then he checks the cases. If they are overloaded, the top layers of packages are up into the levels where refrigeration is negligible and circulation of cold air is blocked off. Overloaded cases simply invite the customer to handle and dig around the packages, resulting in more damaged and shop-worn packages.

Codes are changed periodically, with different combinations of numbers and letters being used.

Packaging lines

In addition to settling the question of centralized pre-packaging versus de-centralized pre-packaging, the company's emphasis on freshness regulates *how much* is pre-packaged—how much not only as to variety of items, but also quantitatively. It is axiomatic that packaging operations are tied to demand. During the first part of the week the contents of the cases will rotate only once or twice during the day. Beginning Thursday, the demand becomes greater and the items may rotate as much as four or five times during a day. As a consequence, the personnel in the meat and deli-

FLEXIBILITY IS ESSENTIAL requirement of all pre-packaging back rooms, the company discovered. Lines must be able to accommodate a full staff during the rush periods without confusion. Here, at one store where a straight-line arrangement is used, women package meat, poultry or delicatessen items as the demand warrants. Automatic wrapping machine (below right) is used with two-stage conveyor leading to it from the butchers' blocks. Meats for machine wrapping are placed on one level; those for hand wrapping on the other. Unwrapped packages are fed into the machine on one side, come out wrapped at the front.



PENN FRUIT COMPANY
MEAT DEPARTMENT
Prepackaging & Coding Policy
The Proper Code for the Date Merchandise is Packaged or Received in the Case of Already Packed Units) is to be Stamped on the Label of Every Item Offered for Sale
THIS DATE MUST BE CORRECT !!
Mistakes for Any Reason Whatsoever will not be Tolerated
CODE FOR MAY, JUNE, JULY 1948
MONDAY - CODE 1 ★ THURSDAY - CODE 4
TUESDAY - CODE 2 ★ FRIDAY - CODE 5
WEDNESDAY - CODE 3 ★ SATURDAY - CODE 6
This Follows the Letter Representing the Packer and the Price per Lb. It will Appear Like This:
39-A-1
EXPIRATION PERIOD...
OFFAL ITEMS—ON FRESH DAILY CYCLES
IDENTIFYING REWRAPS

CODING POLICY explanation charts similar to this one are posted many places in the packaging back rooms. Considered by Penn Fruit as a prerequisite for successful pre-packaging, the code-marking procedure is strictly enforced at all Penn stores. When the expiration date is up, the package must be opened and inspected for quality.

catessen pre-packaging departments have their work week adjusted to this variation. And similarly, the layout of the back rooms where the packaging is done must be flexible enough to allow up to 20 or 24 workers to operate efficiently during the rush periods.

The packaging lines at the stores do not resemble closely those where mass production of goods is a goal. Instead, the arrangement is determined by this requirement for flexibility and efficiency. The company is using both a straight-line arrangement and a double-horseshoe arrangement. The double-horseshoe arrangement has been found very efficient and is serving as the pattern for the newest store. In this layout the meat packaging and delicatessen packaging operations are segregated, one in each horseshoe. Accompanying diagram (p. 104) shows the principles. Cooler rooms are located next to the open end of the horseshoe where the butchers and slicers with their blocks and machines are located. The automatic wrapping machine for the meat and poultry wrapping is in the center area. Around the outside, the hand wrapping and heat sealing are done, as well as the weighing and pricing. The outstanding virtue of this arrangement is in the decrease of traffic. Trays of cut meat are wheeled to the wrapping stations on dollies and, after wrapping, are wheeled away without the wrappers and weighers having to leave their stations. Packaging materials to replenish their working supplies of labels (kept in small metal boxes on the shelves in front of them) and transparent film sheets are brought to them. A central control table can be set up near the wrapping machine from which it is easy to supervise the whole operation.

In some of the stores, the straight-line layout has been used because of limitations in remodeling for pre-packaging operations. Where this arrangement is used, the delicatessen and meat packaging are combined, with the wrappers and weighers being shifted from one product to another. Usually there is a two-stage conveyor running from the end of the line where the butchers and slicers work, past the weighers who make out the labels for the packages to be machine wrapped, to the wrapping machine. Trays of unwrapped packages for the machine travel on one level; trays of unwrapped packages for hand wrapping on the other level. The weighers for hand-wrapped packages must constantly remove these trays from the conveyor and take them to their working stations along the walls of the room. See straight-line work-flow diagram, p. 104.

An interesting innovation recently tested at Penn Fruit pre-packaging units was concerned with scale reading. According to Mr. Cooke, much of the slow-down in production is caused by the difficulty in scale reading. This is a serious problem in light of present high meat prices. "When left to their own devices," Mr. Cooke said, "wrappers will use as many as three different methods in computing the same price. Some of these methods are highly inaccurate and costly." If the "bugs" can be worked out on this scale-reading innovation, this problem may be solved. Individual paperboard price charts were made out with the calibrations of weight shown in relation to price. These charts were added to a fan-type scale face quickly and easily. The printed chart was attached to the scale face by flipping up a hinged molding on the top of the scale and inserting the chart. When the hinged molding was closed, the chart locked into place. When read, the scale indicator swung to register the weight—on the scale's permanent face—and the price—on the chart, where each ounce was indicated by price instead of weight. Number of charts used depended on the range of active prices, with a series of charts running from perhaps 69 cents per lb. to $1.49 per lb.

Costs

Self-service meat departments do 3 to 4% more of a store's volume than meat service departments, according to Mr. Cooke. But self service, while it saves the customer's time, costs money. How much does it cost? Penn Fruit Co. has found that man hours, salaries and percentage of payroll in self-service units are just about the same as in service units. From a comparison of meat-department costs for a week between a self-service and a service unit—comparable in volume and type of customers—made over a year ago, the analysis indicated that efficiency per man hour was greater in the self-service store than in the service.

Over a period of several months, records on costs of packaging supplies in pre-packaging self-service units

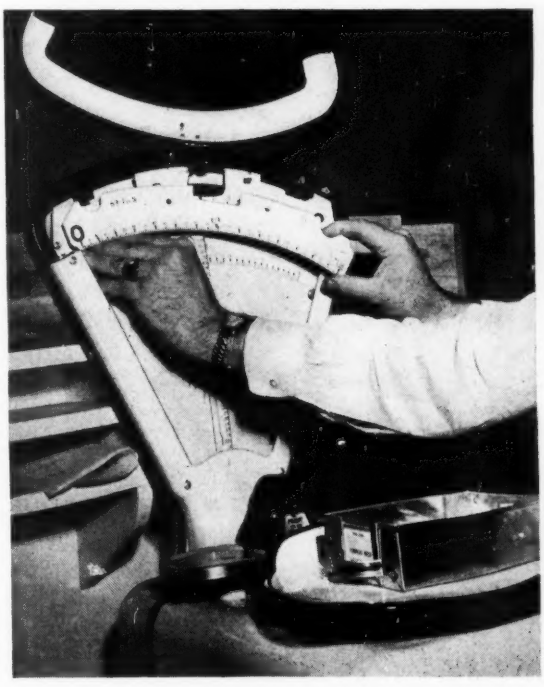
has run 1/4 of 1% of total store volume higher than service, according to company officials. This figure, they point out, takes into consideration the use of extra packaging supplies at check-out counters for wrapping or bagging pre-packaged meats. In the cost-comparison analysis mentioned above, the average labor cost per package in self service was 0.0499 cents; in service, 0.0726 cents. Average packaging-materials cost per package in self service was 0.0133 cents; in service, 0.0144 cents, but these figures did not include the check-out counter wrapping or bagging materials costs. Rewraps are undoubtedly one of the factors increasing the costs of packaging supplies in self-service, pre-packaging units. It must be remembered that in a service unit, too, the clerk wraps several purchases into one package. This saves materials, but it also takes more time.

The fact that the size of the average meat package is smaller in self service than in service and consequently the unit price per package is usually less, affects the whole pre-packaging cost picture in sales volume of Penn's self-service units. The comparison figures showed that the average selling price per package in the self-service store was 85 cents, as against a $1.20 average for service. This large variation in unit price seems to have been reduced in the past few months, although the unit price per package is approximately 11% smaller in self service than service, according to Penn officials. Indications are that as customer acceptance of pre-packaged meat grows, this gap will be closed. Customers are already buying more packages in the self-service departments than when this type of meat merchandising was first instituted. Likewise, the company feels that the other costs may be reduced as their "know-how" of pre-packaging meats continues to grow and their experience expands.

To summarize the company's experience to date in this field:

Penn Fruit Co. has found that self-service meats, poultry, pre-cooked foods and delicatessen items are best pre-packaged at individual store units rather than centrally if freshness as a quality factor is most important. If more than 20,000 lbs. are handled per week, machine wrapping becomes economical and should be used for the greater proportion of packaging. For cold cuts and delicatessen items, hand wrapping produces a neater, tighter package. From a production standpoint, a horseshoe layout is the more efficient for decreasing traffic in work areas, while a straight-line arrangement has merit due to its flexibility. There must be a code-marking procedure adopted and strictly enforced to assure rotation of merchandise and protect the quality of merchandise. Rewraps will average at least 10% on the most perishable items. A large-volume self-service operation with pre-packaging done in the store is more efficient and economical so far as labor costs are concerned than a service operation. Average packaging-material costs in dollars and cents are less for self-service than for service selling but, percentage-wise, packaging material costs are higher in self service. This is due in part to the smaller size of the average self-service package.

CREDITS: **Packaging materials:** *Molded virgin pulp trays (p. 102), "Foodtainers," B-F-D Division, Diamond Match Co., New York. Paperboard trays (p. 102), Sutherland Paper Co., Kalamazoo, Mich. Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Parchment paper liners, Hamersley Mfg. Co., Inc., Garfield, N. J.* **Machinery:** *Wrapping machines (top of p. 105), Oliver Machinery Co., Grand Rapids, Mich., and Package Machinery Co., (bottom of p. 105) Springfield, Mass. Scales, Detecto Scales, Inc., Brooklyn, N. Y., Toledo Scale Co., Toledo, Ohio, and Hobart Scales, Dayton, Ohio. Hand heat sealers, Heat Seal-It Co., Philadelphia, Pa.*



ACCURATE reading of scales and computation of price has been an admitted problem, one not yet solved. They experimented recently with these separate weight-by-price charts which could be inserted in fan-type scales as shown here. Calibrations indicated price per ounce, while permanent face showed weight. Metal boxes on shelves hold label supplies for the weighers.

PACKERS' FROZEN

The big companies push package development for frozen products as the best means of cutting waste and promoting their trademarks in the rush to self-service retailing

What are the big meat packers doing about the current strong trend toward pre-packaged meat for self-service sale?

Generally, they seem to have taken the position that it is impractical to cut and package fresh meats at the packing plant; they are leaving that to retail operations such as that of Penn Fruit Co. in Philadelphia.[1] The packers have a somewhat better chance to package and brand smoked and processed meats, which have a longer packaged life. Several of the smaller packers are active in this field,[2] but the best bet of all for straight-from-the-packer, trademarked, consumer packages is in frozen meats.

Technical difficulties as well as various basic considerations inherent in the make-up of the meat industry have retarded developments in this field. Nevertheless, the merchandising possibilities of pre-packaged frozen meats and their essential logic from the standpoint of economics have long made them a topic of speculation and research among progressive meat packing organizations.

Despite differences of opinion among packers on where pre-packaged frozen meats will eventually fit into the industry's distribution scheme, several of the leading companies are now actually offering frozen meat items on the market in consumer packages. Much of this activity remains in the experimental or pilot-plant stage and the total volume of product reaching the market is relatively small. However, progress is being made and a review of current developments in this field appears in order at this time.

Why should the packer be interested in frozen packaged meats? After all, it may be pointed out, the meat industry is having no difficulty selling all the meat it can produce.

The question might be answered in a number of ways, but most of them boil down to the fact that consumer packaging of frozen meats in the packing plant would eliminate much of the waste present in the industry's prevailing system of distribution. It would, for example, permit higher utilization of trimmings, fats, bones and other components which are now passed along to the retailer and, in some instances, on to the housewife.

When steaks, chops and other fresh meats are cut and packaged directly at the packing plant, fats and meat trimmings can be kept under adequate control. With proper refrigeration assured, they may be profitably utilized in the production of edible products such as lard, ground beef, sausage and meat loaves, etc. Bones, which are now picked up by collectors from the retail meat stores or which find their way into the home only to go to the family dog or wind up in the garbage can, if kept at the meat plant may be employed in the production of various food and technical products.

It should be pointed out that if consumer cuts of non-processed meats are to be packaged directly at the plant, freezing is almost mandatory. Tests indicate that there is little hope of getting fresh unfrozen packaged cuts from the packer to the retailer in a salable condition or at least in such a condition that the cuts would have much shelf life after delivery to the retail outlet. Jostling in transport tends to squeeze the juices from cut surfaces, resulting in an unsightly package. Furthermore, the cut surfaces tend to discolor quickly and prevention of actual spoilage constitutes a serious problem.

Frozen packaged meats, packers point out, mean reduced shipping costs. In the form of consumer-packaged frozen cuts, it might be possible to ship between 40,000 and 50,000 lbs. of *usable* meat in a refrigerator car, whereas in shipping the product in the form of carcasses or wholesale cuts, only some 23,000 to 25,000 lbs. of meat can be shipped in the same-sized car, due to the large amount of waste space present when meat is transported in this manner. Volume shipments of frozen packaged cuts would permit the packer materially to reduce his refrigerator car requirements, with resultant savings in shipping costs.

Elimination of natural shrinkage is another factor favoring plant-packaged frozen meats. It is estimated that the natural shrinkage (through loss of moisture) on a car of fresh meat moving from Chicago to New York runs between ½% and 1% of total weight, representing a loss of $100 or more at current price

[1] See "Penn Fruit's Meat Packaging," p. 102, this issue.
[2] See "Packer's Packages," Nov., 1947, p. 124, and "Hunter's Meats," Dec., 1947, p. 112.

MEATS

CYLINDRICAL paperboard container with a friction-type cover is used as one package by Wilson & Co. for its frozen hamburger patties. The patties are separated by aluminum foil dividers (not shown). To remove product, the housewife need only press bottom of container. PHOTO COURTESY WILSON & CO.

levels. Retail prices of meat must make allowance for this shrinkage, meaning that the housewife must pay for meat which actually vanished into thin air. Frozen packaged meats, on the other hand—if properly packaged—undergo no shrinkage in transit.

The cost of refrigeration for a car of carcass meat from Chicago to New York may run from $50 to $75, meat men estimate. Although conventional cooling methods used for regular meat shipments are not adequate for the shipment of frozen meats, it is believed that with proper equipment, sufficiently low temperatures could be maintained without increasing refrigeration costs more than one-fourth to one-third. Considering the greatly increased volume of usable product which could be shipped in each car in the form of frozen packaged cuts, the slight increase in refrigeration cost could be readily justified.

Determination of the most acceptable packaging materials and methods by no means constitutes the only problem which confronts the packer who has decided to try consumer packaging of frozen meats. Refrigeration facilities must be adequate to keep the product in a frozen state from the time the product leaves the plant until it is safely stored in the retail outlet. Many retail outlets themselves lack sufficient low-temperature storage equipment to handle frozen meat shipments of any volume. Obviously, the entire shipment cannot always be placed directly in the retailer's refrigerated sales case; there must be provision for adequate intermediate storage from which the sales case can be periodically re-stocked.

Consumer sales resistance to frozen meat prices and the typical homemaker's unfamiliarity with the storage and cooking requirements of this type of product are other matters which the packer must consider. These are fertile fields for informative

PICTORIAL PRESENTATION of the cooked product on front of Swift's frozen hamburger package (left) offers serving suggestion that will appeal to shopper. Cooking directions are on back panel. Protection of contents during inspection of an opened Swift carton is assured by cellophane wrapping of frozen meats before placing them in the outer carton. PHOTOS COURTESY SWIFT & CO.

Swift's
Ready-Quick
QUICK FROZEN
BEEF
SANDWICH STEAKS
Cut in Wafer Thin Slices from Beef Ribs
CONTAINS SIX - 2 OZ. STEAKS - 12 OZ. NET
MANUFACTURED BY SWIFT & COMPANY - GENERAL OFFICE - CHICAGO, ILL.

PRINTED CELLOPHANE ENVELOPES used by On-Cor Food Products for their frozen beef patties and steaks have open ends folded rather than heat sealed. Cooking directions appear on reverse side of the envelope. Visibility is the chief asset of this package. PHOTO COURTESY MILPRINT, INC.

ALUMINUM rectangular boat with a crimped lid holds the frozen Swiss steak and gravy combination packed by Wilson. While a paste-on label is now being used, the aluminum lid could have the information printed directly on it. No inner wrap or liner is used with this package.

WILSON'S
Frigi-Pack
SWISS STEAK AND GRAVY
INGREDIENTS: Beef, Water, Oleo Oil, Tomato Puree, Potato Flour, Onions, Flavoring, Wheat Flour, Salt and Caramel Color.
NET WT. ONE LB.
PACKED BY
WILSON & CO., Inc.
GENERAL OFFICES: CHICAGO, ILL.
METHOD OF PREPARATION: Place contents of package in skillet with a tight fitting cover. Add ½ cup of water, cover tight and heat over a low flame for 30 minutes before serving. Servings: 2 to 3.
KEEP FROZEN

labeling and consumer educational efforts. Some packers believe that when consumers come to understand that frozen meats are practically devoid of waste, they will stop worrying about the cents-per-pound price and realize they are actually getting more usable meat for their money in this type of product.

The virtues of a number of different types of packaging materials and forms of packages have been investigated by packers interested in consumer packaging of frozen meats. The consensus among those who have worked these products appears to be that no one packaging material is best for all kinds of frozen meat products. MSAT cellophane, however, seems to enjoy rather widespread acceptance in those packages which are either on the market or in the test stage at the present time.

Polyethylene sheet in tubing form has been studied by some packers for frozen meat packaging. Although the material has the requisite strength and is more than adequate from the standpoint of low-temperature resistance and while it can be safely used in direct contact with food products, it leaves something to be desired in the way of transparency. The sealing of polyethylene also presents a problem. Saran and Pliofilm have protective properties making them of interest in frozen meat packaging; one major packing firm which has done considerable research work in this field is inclined to prefer Pliofilm over cellophane for large items such as roasts. Perhaps the greatest obstacle to increased use of various types of plastic films in frozen meat packaging is the factor of price.

Aluminum foil appears to have a future in frozen meat packaging, particularly for certain types of frozen cooked products which lack eye appeal in the frozen state and thus gain no merchandising advantage when placed in a transparent package. Folding cartons of paraffined paperboard also offer convenience, protection and a good printing surface for frozen meat packaging. The Swift frozen hamburger package, illustrated in this article, shows how the latter virtue of the paperboard package has been effectively utilized to present a tempting picture of the product cooked.

Packers have also been investigating the possible use of molded polyethylene tumblers, with removable lid or cover, for such items as frozen hamburger. The tapering side walls of such a package would permit the ground meat to be removed easily for slicing into patties of convenient size and the container would have re-use value in the home refrigerator or merely as a tumbler. However, experiments with these containers indicate they may not provide sufficient protection for long-term storage of frozen ground meats, particularly at the point where the cover meets the lip of the tumbler.

Although freezing, packaging and other technical problems have played their part in retarding the growth of frozen meat packaging at the packer level, the chief obstacle appears to be the nature of the meat industry itself. Ever since the development of the refrigerator car made possible the distribution of fresh meats to all parts of the country, the industry has been built upon a pattern that is unique in the food field. Under this system, the packers, or slaughterers, reduce meat animals to carcass or wholesale-cut form, leaving the final preparation and packaging of consumer cuts to the meat retailer.

With frozen packaged meats—or with plant-packaged meats of any kind, for that matter—this time-honored function of the retail meat operator is eliminated. Frozen packaged meat becomes, in effect, a "shelf" item which may be examined by the housewife

without the help of the butcher and purchased at her leisure. Waiting in line at the meat counter is eliminated. All this sounds good on paper, but the personnel problems inherent in such a radical new merchandising arrangement cannot be lightly dismissed by either the meat packer or retail meat dealer. It is largely for this reason that plant packaging of frozen meats, even by those firms most active in the field, remains on an exploratory or preliminary level.

From the consumer standpoint, it is doubtful that the average housewife would draw much distinction between frozen meats and fresh unfrozen cuts package in the retail store. The important thing to the retail buyer is that both are packaged items which can be bought without delay and which can be examined prior to purchase. For those having a home freezer cabinet, frozen cuts offer the possibility of long-term storage for considerable quantities of product and fewer trips to the store to buy meat.

Even for those without storage facilities, the frozen packaged meats are items which may be bought without delay or inconvenience, stored for extended periods in the freezer section of the modern refrigerator and prepared without the fuss and bother of trimming, disposing of blood-soaked wrappings, etc. If the product is cooked directly from the frozen state without preliminary thawing, which appears to be the preferred practice, it is possible to work out cooking times which are very reliable and will yield a tasty, nutritious product every time.

One of the major meat packing organizations working with frozen packaged meats is Wilson & Co., which launched an intensive investigation of this type of product more than four years ago. Although much of the Wilson activity is still in the experimental stage, several types of frozen meat items have been developed and have reached the market through test outlets at Mamaroneck, N. Y., Ardmore, Pa., the Twin Cities and Chicago.

In its packaging of frozen steaks and chops, Wilson & Co. has used MSAT cellophane, hand wrapped for close fit around the meat and either heat sealed or secured with acetate fibre tape. In most instances, trays have been avoided because they present corners which do not conform to the contours of the meat cut, leaving pockets or air spaces where the wrap is exposed to puncture. The experimental Wison label used on these cuts is placed on the meat before it is wrapped and carries the company name and net weight of the product. It is printed with a red background rather than the customary Wilson orange, which does not appear to advantage against the red of the meat. Cooking instructions are still being studied and may be added later on a separate label or insert.

The Wilson fresh meat cuts are weighed and packaged in a cooler at a temperature of approximately 40 deg. F., then placed in a low-temperature room where they are frozen by rapidly circulating air at a temperature of 15 to 20 deg. below zero. The packaged steaks, chops or roasts are placed on metal shelves, staggered to allow maximum air circulation. Freezing time varies in accordance with the thickness of the product.

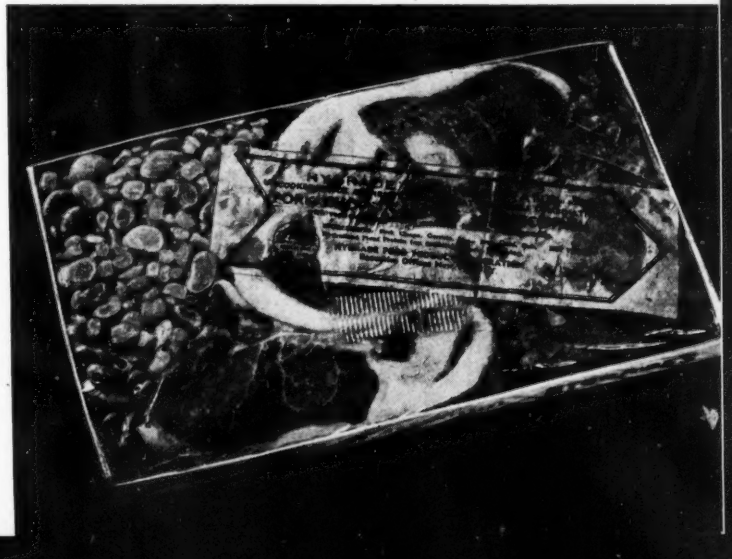
Wilson's Frigi-Pack ground beef, now in limited distribution, is packaged in the form of six frozen patties placed in a straight-sided cylindrical paper container with friction top, inprinted with the company name and trademark, the Department of Agriculture inspection stamp and cooking instructions on the back panel. The six patties, having a net weight of one pound, are separated by sheets of aluminum foil. They are easily removed from the package by pushing in the paperboard bottom. The package has a special liner and a laminant to curtail water-vapor transmission.

Wilson's Frigi-Pack swiss steak and gravy, a precooked product, is another frozen item which has reached the test market stage. The package being used is a rectangular, taper-sided tray formed of a single sheet of heavy-gauge aluminum foil, equipped with a crimped-on lid which provides an effective seal. The label currently being used on this package is printed in red on white gummed stock and is applied to the lid. Such a label, of course, may be printed directly on the aluminum cover if desired.

Swift & Co. is now in limited distribution of at least two frozen packaged meat items—Swift's Premium quick-frozen hamburger and "Ready Quick" sandwich steaks, both of which are expected to be made available throughout the country in the near future. Swift's Premium quick-frozen veal cutlets, similarly packaged, have also been developed for early distribution.

Introduced on a limited scale prior to the war, the quick-frozen hamburger was again brought out on a test basis about a year ago. The item includes four 3-oz. hamburger patties, separated by parchment disks, cellophane wrapped and placed in a printed folding carton of waxed paperboard. Attractively designed, the container features a light blue band encircling the

PARTITIONED paperboard tray with a complete cellophane overwrap is used by Hygrade Food Products for its uncooked frozen dinner combinations. The vegetables are placed in small triangular trays that are then slipped into the corners of the larger base with the meat in the center.



package at one end, with a color illustration of a platter of hamburgers vignetted against the band on the top panel. Balance of the top panel includes the company and product identification, net weight, ingredient listing and an eye-catching red patch imprinted, "Ready to cook . . . keep frozen."

The four side walls of the package carry a repetitive treatment of the Swift name in a geometrical pattern and identification of the product as hamburger. The bottom panel is given over to storage and cooking instructions. A model of simplicity, the instructions employ bold sideheads which supplement the more detailed instructions—"Keep frozen," "Cook without thawing" and "Cook after thawing."

The Ready-Quick sandwich steaks are also placed in a cellophane wrap and packed in a waxed folding carton. This package is somewhat plainer in design treatment and carries no product illustration. Instructions are provided on a printed insert and the bottom panel is left plain. The veal cutlet package contains four cutlets with a net weight of 12 oz., having for its chief design element the Swift's Premium blue oval with red decorative trim. Side panels warn that the product should be kept next to the refrigerator coils until ready for use and also carry in script the statement: "Boneless —No Waste." Cooking suggestions are given on the bottom of the package.

The three Swift frozen meat packages, all of which are opaque, indicate the difference of opinion among various packers regarding the merits of a transparent container for frozen meats. However, it should be pointed out that these packages may be (*Continued on page 202*)

PRE-PACKAGING HIGHLIGHTS MEAT DEALERS' MEETING

The growing interest of meat retailers in improved merchandising through pre-packaged fresh red meats and pre-packaged cured and smoked products was amply evident at the 63rd annual convention of the National Assn. of Retail Meat Dealers, held at the Hotel Sherman, Chicago, on Aug. 1 to 5. Indications of this significant meat industry trend were present both in the convention program and in the commercial exhibits shown concurrently with the meeting.

Speaking on "Is Self Service a Threat or an Opportunity," Walter S. Shafer, vice president and general sales manager of Armour & Co., cited the pros and cons of self-service meat merchandising as uncovered in an extensive survey conducted by his company. Results of this Armour report were summarized in some detail in the July, 1948, issue of MODERN PACKAGING, p. 126.

In general, Mr. Shafer declared that while the change-over to 100% meat self-service may not take place in as many stores as is sometimes believed, "we are convinced that the trend toward self-service meats will continue and that we will see many more retailers coverting to 100% self service on meats."

One of the features of this year's meeting program was a demonstration of meat self-service, conducted under the auspices of *Meat Merchandising* magazine. The demonstration included the preparation and packaging of consumer cuts in the retail store and their placement in the self-service case for maximum sales appeal. Cuts were placed on flat meat pads made up of a layer of peach market paper, microcrystalline wax and outer layer of greaseproof board, colored red to harmonize with the meat and prevent staining in handling, and wrapped in heat-sealing cellophane and cellulose acetate (see p. 172).

Intended to show the equipment and techniques required for a meat retailer to set up for self-service merchandising in his own store, the demonstration included the use of a semi-automatic heat-sealing machine (see p. 168) and heat-sealing labels which were applied to each cut after packaging. Retailers were shown the importance of a tight, secure wrap, well-placed label and adequate refrigeration facilities for keeping the meat in salable condition.

Of considerable interest to retailers weighing the field of self-service meat merchandising was the demonstration of a foot-operated wrapping machine, adaptable to a wide variety of meat-cut shapes and sizes, which heat seals cellophane and other types of films around steaks, chops, tray-packed delicatessen items, etc., at speeds ranging from 900 to 1,600 packages per hr. It was pointed out that one such unit could handle the complete packaging requirements of the average retail meat outlet and could be used on many other wrapping jobs elsewhere in the store.

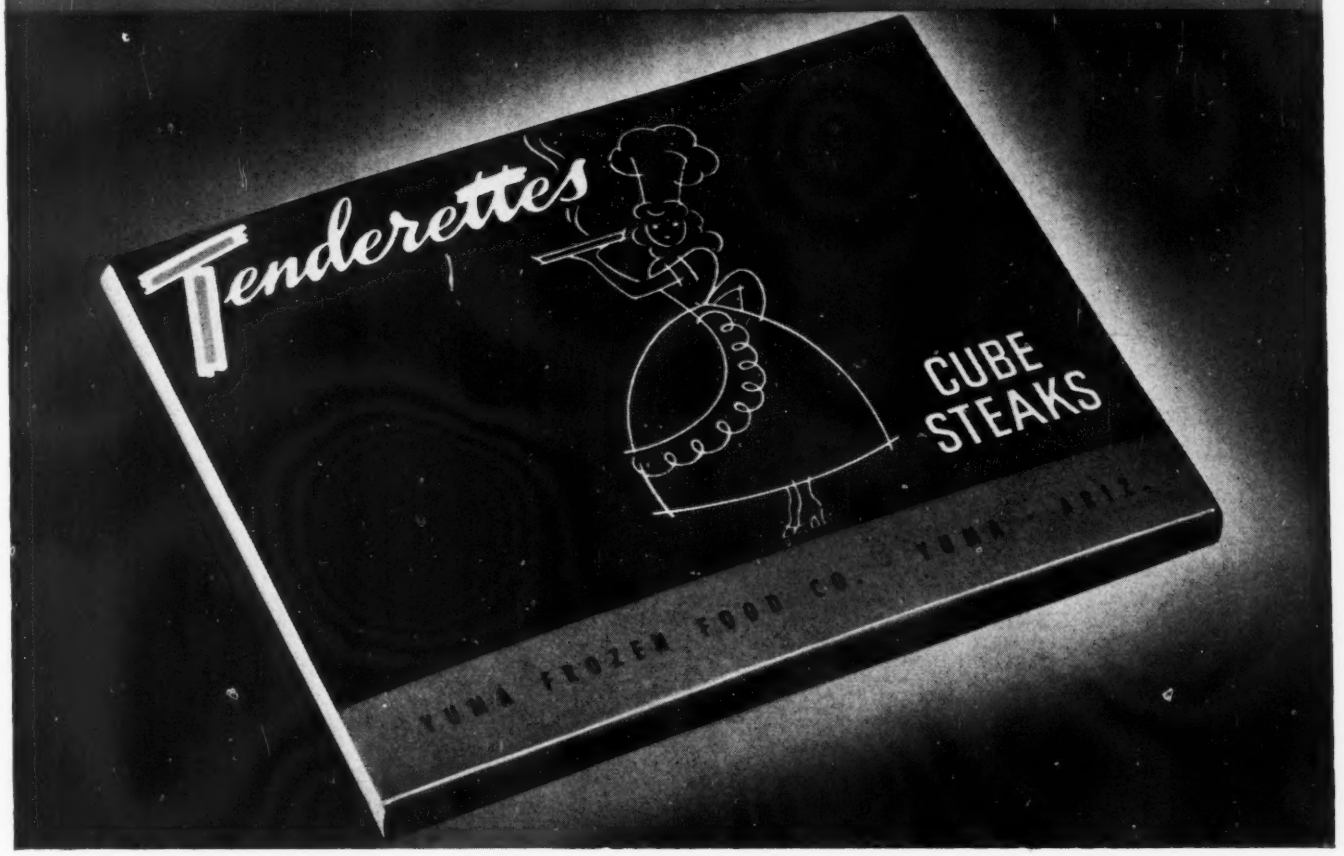
Packer displays at the meeting included a number of packages designed for self-service merchandising. Practically all, however, were for cured and smoked products such as frankfurters, pork sausage, sliced bacon, pork butt, beef tongue, chili con carne, thuringer and several other sausage items.

Only two frozen meat items packaged at the packer level—hamburger patties and sandwich steaks—were on display and no fresh unfrozen cuts fabricated and packaged at the packer level were shown.

WRAP-CARTONED STEAKS

Convenient new package enters frozen meat field

and sales increases as high as 100% are reported



EYE APPEAL of wrapped package that looks like carton helps Yuma Frozen Food Co. build the kind of business they want for tenderized frozen cube steaks. Colors are dark meat red and bright orange-red; trade and product names are in white and illustration is in yellow.

The new package for Tenderettes, frozen tenderized cube steaks put out by Yuma Frozen Food Co., Yuma, Ariz., marks an interesting entrance of the wrap-carton into the frozen packaged meat field.

This is the same type of package that has been adapted successfully to the packaging of sliced bacon and link sausage. Introduced about two years ago for butter and margarine, it technically cannot be called either a wrap or a carton, but a combination of the two. It is made of a scored paper strip bonded to a flexible printed sheet, the two forming a single flat sheet which folds into a carton type of package.*

Since its introduction for Tenderettes, stores have reported as high as 100% increases in their sales after the first 30 days and Yuma claimed an increase of 40% in deliveries during the same period.

Yuma decided that if they were to build the kind of a business they wanted for tenderized steaks, they would have to adopt a suitable package holding two steaks that would be convenient and attractive to the consumer and that would be a fast packer.

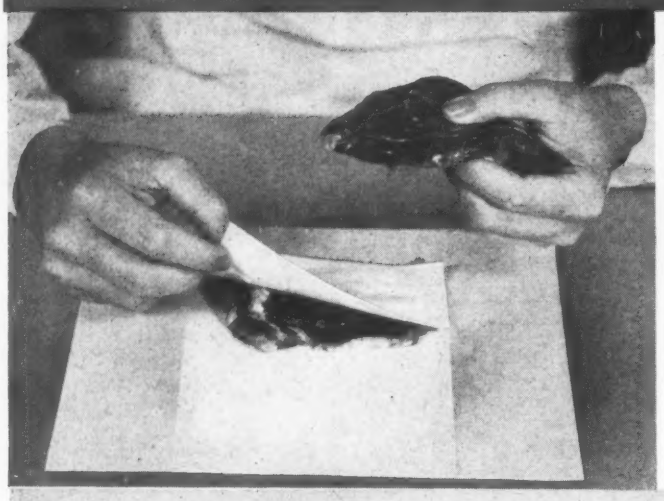
Tenderettes are cut from "rib-eyes" and are said to represent the best cut of meat used for cube steaks. It was thus the company's aim also in packaging these steaks to take this type of cube steak out of the sandwich class and to promote it, with complete cooking instructions, for general family menu purposes.

Further requirements demanded that the package should have keeping qualities and withstand storage at low temperatures (5 to 32 deg. F) and remain in good condition until the steaks were removed after thawing preparatory to cooking.

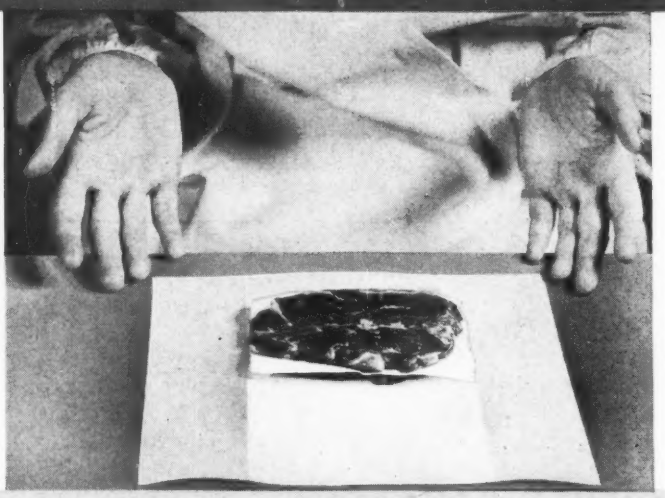
Originally Yuma packaged this type of steak in a sheet of supercalendered sulphite, held together with

* See "A Lift for Luer," MODERN PACKAGING, p. 142, Aug., 1948, and "Wrap-Carton," MODERN PACKAGING, p. 138, March, 1946.

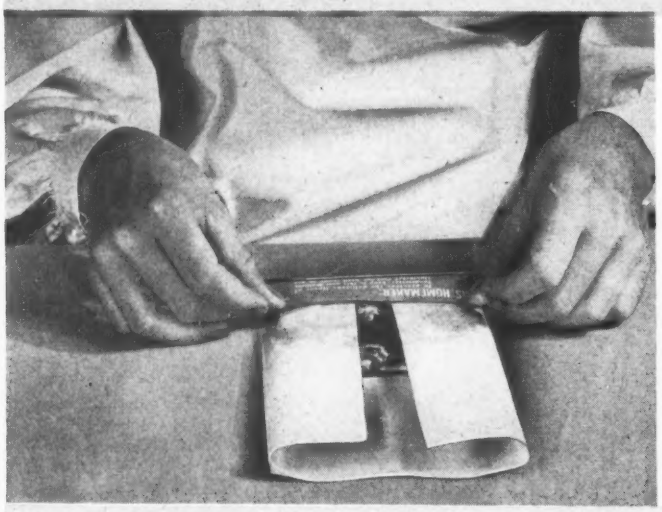
Step by step method for wrapping



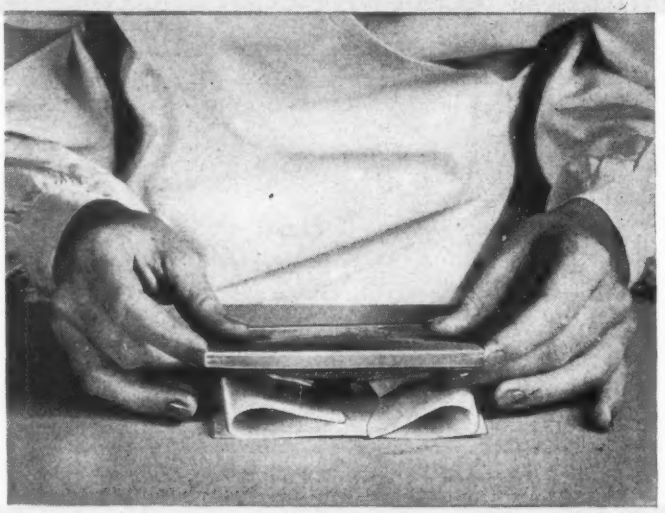
STEAKS are positioned within score lines of laminated sheet comprised of 50-lb. printed bleached sulphite and 23-lb. plasticized opaque glassine.



SLIP SHEET which serves as a protection is placed by operator between the two steaks. Now the meat is ready for beginning of wrapping operation.



SHORT FRONT FLAP, always placed toward operator, is folded over first. Message tells homemaker to keep Tenderettes in package till ready for use.



FLIPPED OVER, the package begins to take on its carton shape as the operator carefully folds wrap along score lines, completing folding operation.

a piece of kraft gummed tape. Sales suffered, it was felt, because the package did not have the proper consumer appeal. When the company decided to bring out a new package, many possibilities were considered. The idea of a flexible transparent package was eliminated because of the hazards of discoloration of the meat and because of the difficulty in maintaining uniform shapes. Various combinations of stiffeners and wrappers with labels for brand identification were tried, but presented problems of wrapping operations which were too slow. Overwrapped cartons, the company felt, might have been satisfactory, but would have required wrapping machinery and methods for eliminating air spaces inside the cartons. Window cartons were ruled out also because of the discoloration problem.

The wrap-carton appeared to be the answer. West Coast users of this package for sliced bacon and sausage were consulted and the supplier was called into consultation to develop a package of this structure suitable for Yuma's Tenderettes.

First a new size had to be developed to hold the two tenderized steaks. It was designed to provide all that was demanded in surface appeal and sales punch. All went well in initial tests until the temperatures hit zero. The original wax coating, satisfactory for many applications, would not withstand low temperature.

Not willing to give up, however, the supplier made up a second package, incorporating a new type of wax coating. This time, the company claims, the experiment came through with flying colors.

The new package is made from a sheet of printed bleached sulphite, 50-lb. weight, and one sheet of 23-

the wrap-carton

SIDE FLAPS of the wrap-carton are folded over the meat. The operator then presses them lightly against the steaks to hold them in proper position.

COMPLETE, the wrap-carton is now ready for the freezer. Here the package is frozen shut and it cannot be opened until the steaks have been thawed.

lb. plasticized opaque glassine. The two are bonded together with a special blend of waxes for low temperatures. The wax is said not to flake off at sub-zero temperatures, yet the package will break away from the steak freely after thawing.

The scored, laminated-in-one-piece package is said to be a fast packer. The operator merely positions one steak within the score lines of the wrap-carton, places a protective sheet over the first steak and lays the other on top of it. She folds end flaps over the meat, pressing them lightly into position. The short front flap, always placed toward the operator, is folded over next. The package is then flipped over to complete the folding and is ready for the freezer, where it is frozen shut.

After the package was developed, it was found that a pressure-sensitive adhesive label had a good psychological effect in discouraging tampering. Although the Tenderette package is frozen closed and cannot be opened until thawed, the additional adhesive label precludes the possibility of shoppers trying to open the package. The label also carries additional informative data which was not felt necessary when the wrap-carton was first made up, but has since become important.

After the solution of technical problems, Yuma turned to the design and color scheme for the package. Top and bottom of the package are printed in a good meat shade of red, with brand and product name in white. An outline drawing of a girl chef printed in yellow adds the desired feminine appeal. A bright orange-red strip on each side carries the company name. This color extends also over the short side flap where is printed for the consumer to see this message about the package:

"Mrs. Homemaker: To preserve the delicious flavor of Tenderettes, keep in this new Mullinix Lightproof package until ready to use."

Another important part of the packaging program is the use of a recipe insert to promote the many uses for Tenderettes, emphasizing strongly their family menu purposes. Inserts in each package will be printed on vegetable parchment.

The two-steak packages are shipped in patented, automatic-opening outer cartons holding 24 of the packages. These cartons are similar to the easy-to-set-up cartons used for ice cream bars and other confections which must be kept frozen. They carry the same trade identity as the Tenderette packages.

CREDITS: *Wrap-carton, Mullinix Packaging Division, Western Waxed Paper Co., Division of Crown Zellerbach Corp., Los Angeles, Calif. Inserts, Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich. Labels (Kum-Kleen), Avery Adhesive Label Corp., Pasadena, Calif. Outside carton, Standard Paper Box Corp., Los Angeles.*

OUTER CARTON is a convenient shipping unit for 24 of the individual units holding two steaks each. It sets up in one flip of the wrist.

DESIGN

SUN-TAN ORIGINAL

Wire screen and pronged paper clips are not included in ordinary lists of decorative packaging materials, but their use on Clara Reisner's "Copper Screen" sun-tan lotion makes a strikingly original package, literally associating product name with the physical design of the package. The wire screen mat encircles the bottle completely and is held in place by three of the paper clips. A copper-colored label of paper-backed foil, printed in black, is attached to the screen by two more clips. In addition to being decorative, the screen assures a non-slippery surface to grip. A heavy, plain, metal-plated closure has a phenolic threaded cap insert. Directions for use are on a printed label pasted to the bottom of the bottle.

CREDITS: *Bottles, Swindell Bros., Inc., Baltimore, Md., Labels, New York Label & Box Corp., New York. Closures, Richford Corp., New York.*

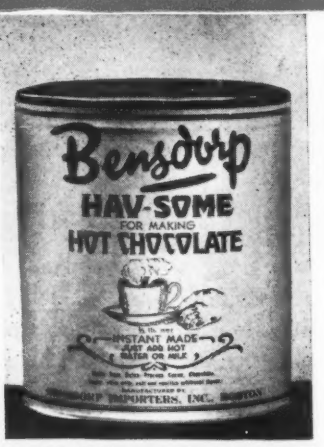
REDESIGN FOR U. S. MARKET

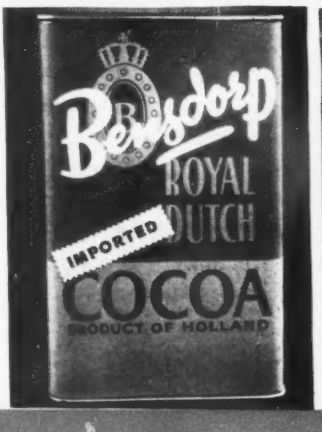
To re-introduce imported Royal Dutch cocoa and instant chocolate in this country, Bensdorp Co., Boston importers and distributors, realized that a radical change in packaging was necessary to meet the demands of self-service selling in the modern American grocery store.

The design not only had to express top quality, but be such that it would attract attention among competitors.

The change takes the cocoa package away from a traditional design to a very modern one with only the 100-year-old royal crest retained from the past. The instant-chocolate package utilizes the pictorial suggestion of the end use. Both of the packages are fibre canisters equipped with metal ends.

CREDITS: *Design, Jim Nash, New York. Canisters, American Can Co., New York. Labels, Nevins-Church Press, Inc., New York.*



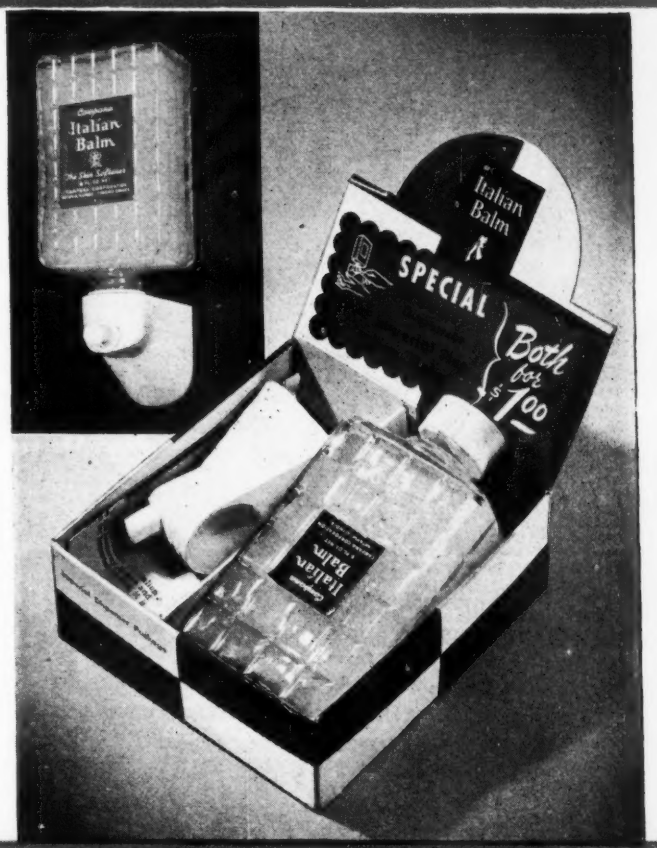


HISTORIES

WALL DISPENSER

The Imperial dispenser package introduced this month by Campana Sales Co. brings back the famous home dispenser for Italian Balm hand lotion that was discontinued during the war. The special $1 combination display-carton package offers the lotion in a bottle whose cap is designed to serve as part of the dispenser with the improved white vinyl plastic dispenser itself. When the bottle is placed in its proper position with the cap fitted in the dispenser, the label is right side up. The closure, also vinyl, has a hole in the top which is covered by a heavy paperboard inner disk with a plastic liner. To assemble, the cap is unscrewed, the disk punched out or pin-pricked through, the cap rescrewed and the bottle turned down into the dispenser.

CREDITS: *Dispenser and cap molded by Federal Tool Corp., Chicago, of Bakelite Corp.'s Vinylite. Carton, Gardner-Richardson Co., Middletown, Ohio. Bottle, Carr-Lowrey Glass Co., Baltimore, Md. Label, National Label Co., Philadelphia.*



Sun-Clip
SUN-CLIP Glasses are molded to high optical standards from a special plastic formula, to reduce glare, filter out the harmful ultra-violet rays of the sun, and preserve the relative color values of the spectrum. The metal parts are made of a stainless steel which will not tarnish or rust.
TO CLEAN YOUR SUN-CLIPS use only ordinary soap and water and dry with a soft cloth. Other methods may cause damage.

SUN-GLASSES CASE

Display possibilities and utility value get a high rating for this carrying case package used by Domar Products, Inc., for its clip-on type of sun glasses. It is a novel, inexpensive package—the medium weight card stock is die cut in one piece and scored for folding.

Printed to simulate lizard skin in red, blue and green colors, the shape of the case permits quick identification of the contents when displayed on a counter. The instruction sheet formerly inserted in the carton package previously used is eliminated by printing the instructions directly on the inside of the case.

Dealers have found that customers are also attracted by the compactness of the case which may be dropped into a purse or shirt pocket, it is reported.

CREDIT: *Case, Sandusky Folding Box Corp., Sandusky, Ohio.*

COLLAPSIBLE TUBES are finding new applications in cosmetics. This is Marie Earle's tube for cream deodorant in transparent folding box.

WAR IDEA for pharmaceuticals was the inspiration for this single-application perfume package. Perfume-filled, sealed glass vial with stockinette covering is crushed between fingers, then rubbed on skin for the fragrance.

COSMETIC SEASON

This is a season of reason in the cosmetic industry. News of fall packaging indicates that most companies are over the first shock of last year's heavy inventories, have taken stock of their current positions and appear to be making plans with greater sureness than was evident last year at this time.

Much attention is being directed to redesigning standard lines, bringing them up to date to meet the packaging requirements of the 1948 shopper. Several old favorites will be seen soon in new dress.

Some companies appear to be approaching this year's holiday season cautiously, with not too many speciality items, but concentrating on stock numbers that can be dressed up for the holiday trade and used for regular selling later by the removal of outside wrappings or ribbons. This procedure is similar to that practiced in

PRIVATE MOLDS: Above, Schiaparelli's French bottle for a new perfume, "Zut," is the other half of the dressmaker torso popularized for "Shocking." New bottle is described as "an uninhibited pair of legs in spangled trunks, standing in a fluff of skirt." Across the page: Yardley bottle for Lotus perfume; Queen Helene's decanter for "Lucky" bath crystals; Old South's bottle for Star Fire Fragrance; vanity-table jar for new "Vaseline" cosmetics, cuticle-and-nail and eyebrow-eyelash creams.

DISPOSABLE AFTER-CHRISTMAS outer wrappings give impetus to holiday sales. Dermetics put sleeves on four treatment kits. One is shown above. Djer-Kiss items (right) are dressed in foil and bows for holiday selling.

OF REASON

New fall packaging reveals thoughtful planning to avoid the past year's heavy inventories and to meet current problems of higher material costs

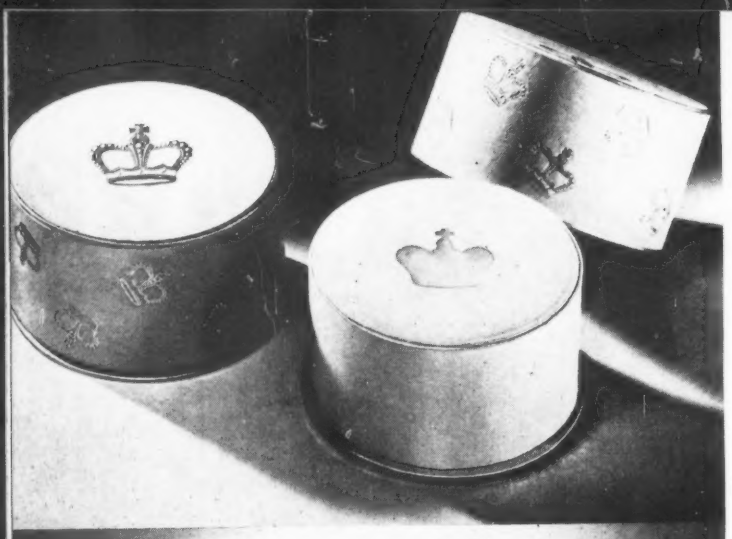
the cigarette industry for many years in supplying holiday sleeves for cartons of cigarettes during the Christmas season, but which could be removed later. The purpose of such packaging is to minimize returns.

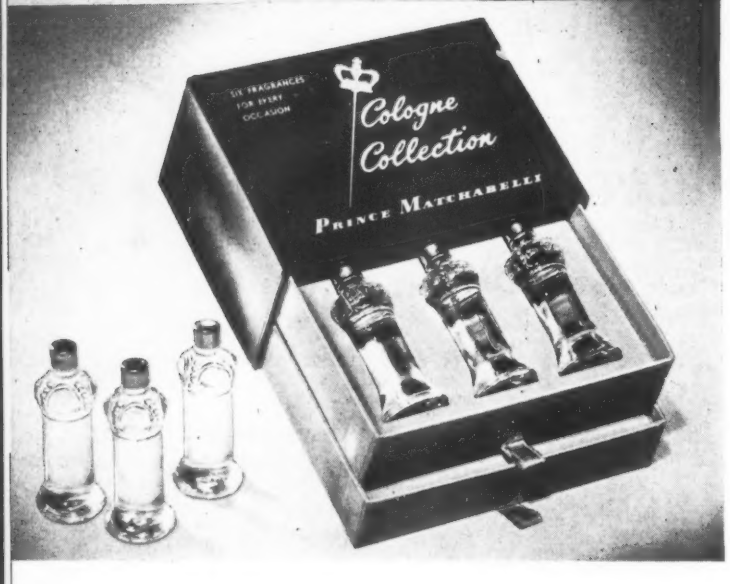
An example is the time saver just announced by Universal Laboratories for Djer-Kiss cologne, eau de toilette, perfume and sachet. A special Christmas display stand has been designed to hold one each of these items, gaily wrapped in either red or green metallic paper and tied with ribbon bows. A decorative tag identifies each item. The display gives the price of each item and suggests it as a gift. The retailer has prepackaged stock of these items behind the counter, supplied complete by the manufacturer, ready for sale without further gift wrapping. Should any items be left over in January, the wrappings may be torn off and the items sold by retail distributors as regular stock.

Dermetics is another firm making use of a clever, disposable-after-Christmas outer gift wrapping to give impetus to holiday merchandising of the regular Dermetics treatment kits. Colorful decorative paperboard sleeves have been designed to fit over four of their regular treatment kits, each one a different design.

Novelty packages

Other companies, however, are gambling on the shopper's eternal desire for something new and will have many novelty items on the market this year. Coty

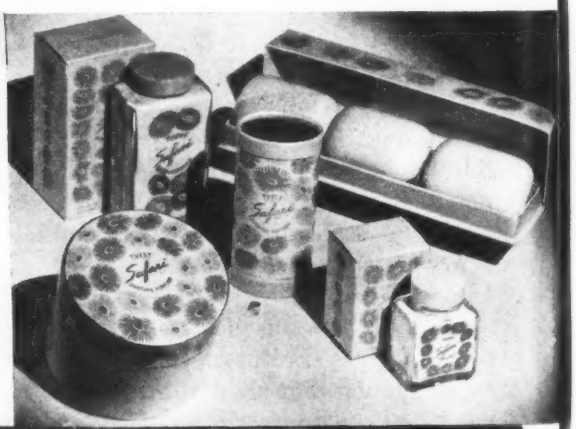




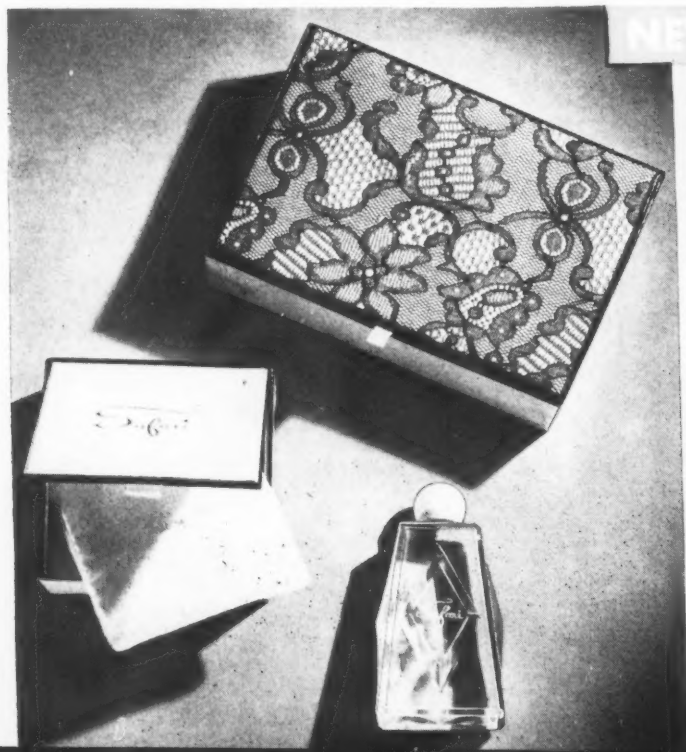
announces a 1948 Christmas gift collection of some 58 items including Christmas bells, treasure chests, crystal balls to hold perfumes, its "Love-Letter" compact, purse carriers and numerous set boxes.

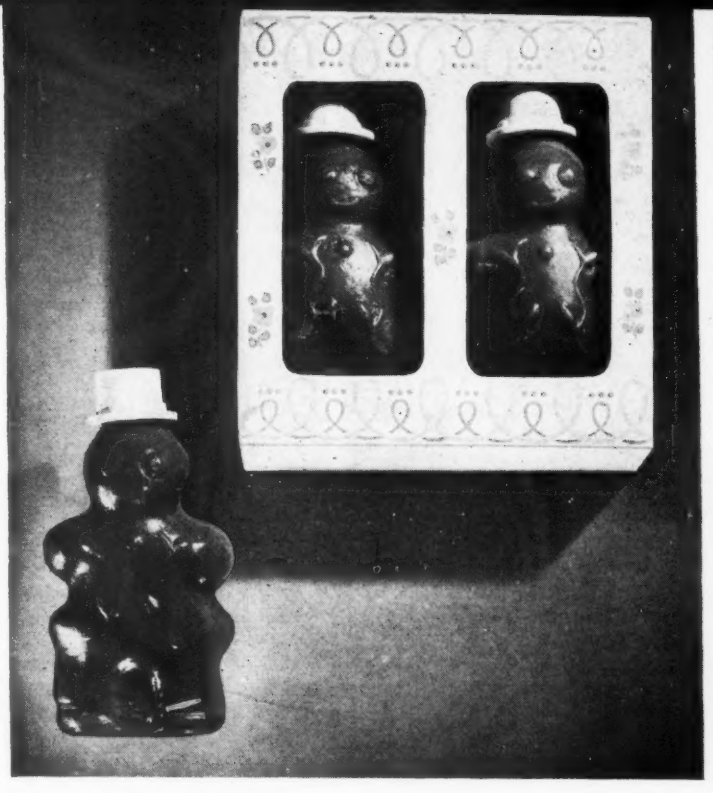
Harriet Hubbard Ayer announced during the summer its new line called "Pretty Package," including cleansing cream, skin freshener, face powder and lipstick in a box all wrapped up in a kerchief that can later be used as tie or scarf; also "Pretty Package Brush-Up," including cream soap in a wooden shaving bowl, packaged with a complexion brush. A replica of a miniature Early American wooden knife box holds two shades of Ayer lipstick. Two Ayer lipsticks are also packaged in one of the new transparent cellulose acetate and vinyl-laminated folding cartons, tied with gold cord and two tiny Christmas balls. Baskets suitable for many re-use

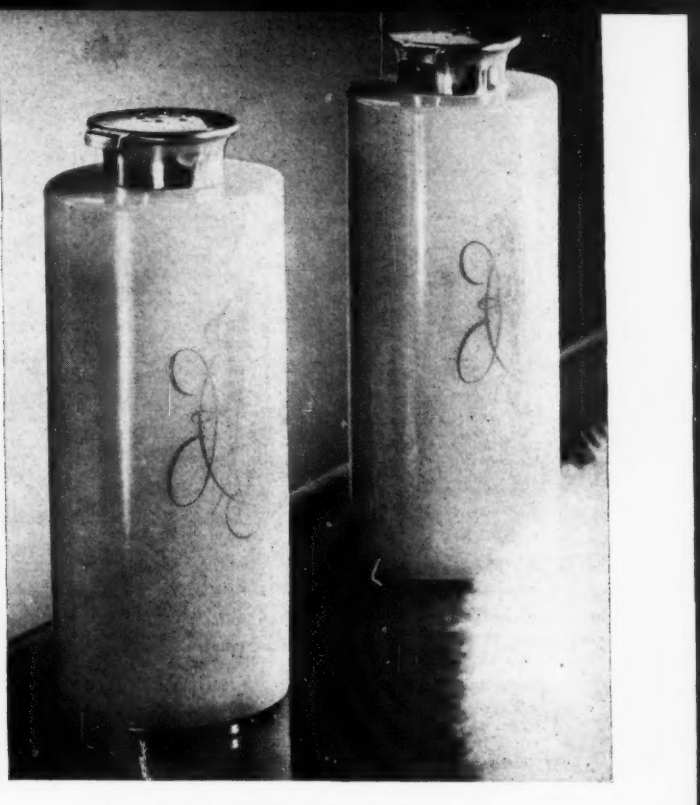
NEAT TRICK in the new packaging of Prince Matchabelli's face powder (above left) is the window for viewing the shade, die-cut in the shape of the crown trademark. Two-drawer box holds Matchabelli Cologne Collection, one of four shiny black boxes with cerise accents that will identify company's gift items this year.



REDESIGNED LINE of packages for Tussy's "Safari" perfume and bath products (old at right) reveals current fashion preferences for the feminine—brocades, silks, and bits of lace. The cut-glass bottle is reminiscent of Grandmother's dressing table. Colors are soft pink, accented with black. Set boxes are smaller, in accordance with trends, some padded and covered with real black lace—suitable for dresser boxes.







PLASTIC BOTTLES. Pre-production dummy of polyethylene squeezable bottle (left) to be in form of Tussy's "Ginger Spice Man," an amusing private mold. Coty's Chypre talc is in luxurious acetate container.

purposes are employed by Harriet Hubbard Ayer for a number of products in the Luxuria line and for Golden Chance perfume, nested in shredded cellophane and festooned with holly leaves and berries. Most unusual of the novelties are Ayer's golden bangle bracelets to which are affixed tiny ball pendants containing flacons of Golden Chance perfume.

An entirely new idea in perfume packaging is the "Evettes" package, containing 12 tiny ampoules of Cobra perfume, put out by Parfums Weil Paris Co. The stockinette-covered glass containers are an outgrowth of the war for the packaging of liquid pharmaceuticals in small ampoules that could be crushed between the fingers. Properly dressed up, these tiny ampoules provide a most convenient method of handling perfume. Each sealed ampoule is just enough for one application. Your merely crush it in its stockinette cover and rub it on the skin. The special ampoule glass, when crushed, reverts to a granular structure within the stockinette when rolled between the fingers so that there is nothing to scratch.

Lucien Lelong packages two lipsticks called "Whistle Stop" along with a real whistle—a handy gadget to call a taxi on a rainy night. Peggy Sage has a new premium package called "Coast to Coaster" containing nail polish and lipstick, of which the base becomes a transparent polystyrene coaster for re-use—an idea to keep the shopper buying more until she has a set. Helena Rubinstein puts four different shades of lipstick on a key chain—all attached for use to match your moods and costumes.

An interesting Christmas package in the Richard Hudnut collection is a dram bottle of perfume caught in a transparent holly leaf with deep green aluminum foil background, which is ready for hanging on the Christmas tree.

Sets and fitted cases

There was much conjecture early this year in regard to the future of set boxes and fitted cases. There may not be quite the variety seen during other seasons, yet leaders in this field are going ahead, in some instances, with larger selections than ever. Bourjois catalogs show more set boxes than last year, all more elaborately packaged than ever. For years this company has done one of the largest volumes in sets and is counting on the the 1948 season to match all records. Roger and Gallet's catalog showed illustrations of some 30 set packages in the various Roger & Gallet scents. Interesting are Roger & Gallet's cologne series packaged in miniature demijohns.

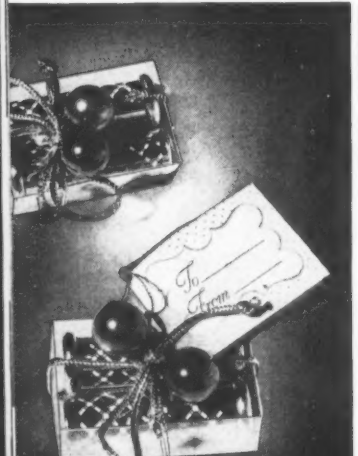
Yardley's gift sets this year range in price from $1.65 to $14.75. Included in the assortment are seven men's sets, five Bond Street and seven Lavender sets. Of special interest is Yardley's "Travel Pac" for men, containing after-shave lotion and shaving cream.

Makers of manicure preparations and cutlery are among the largest users of set packaging, leather kits and fitted cases. Peggy Sage's catalog of cutlery sets illustrates a dozen or more, many of them of real leather, some equipped with zipper closing, some combining leather or leatherette with plastic frames. Peggy Sage's manicure preparations are also packaged in leather cases, as well as in decorative containers of plastic, metal and paper. Many of the boxes have reuse appeal for jewel boxes, cigarette cases, etc. Nor-

PREMIUM PACKAGE. Plastic base of Peggy Sage set is re-usable coaster.

CARILLON is the name of a new gift-packaged set for three different scents of Coty perfumes. Bottles fit in three bells of transparent plastic hanging from archway.

FOIL HOLLY LEAF covered with acetate contains Richard Hudnut perfume.



NOVELTY APPEAL is achieved by these three packaging ideas for Harriet Hubbard Ayer: two lipsticks in transparent carton, decorated with balls and bows; tiny flacons of perfume in dangle bracelets; miniature replicas of Early American wooden knife boxes that hold two shades of lipstick nested in cellophane.

tham Warren Corp. is featuring a collection of 10 Cutex manicure cutlery sets. The Cutex manicure-preparation sets are presented in a number of boxed combinations and in plastic trays convenient for dressing table use.

Marie Earle has announced 10 fitted cases in its luxury line ($25 to $125) reflecting the latest fashion trends, including imports from England made by the trunk maker to the King, a handsome overnight shoulder bag, special kits of faille and leather, zippered week-enders and brocaded evening envelopes.

Other firms that have already announced fitted cases in their Christmas lines are Richard Hudnut, John Hudson Moore, Lentheric and Dermetics.

Private-mold glass

Noticeable in 1948 perfumery packaging is the increasing use of new private-mold glass. Most unusual is the container just announced for Schiaparelli's new perfume called "Zut," a 2-oz. bottle forming the other half of the now famous Schiaparelli dressmaker torso bottle. Publicity releases describe the form of the bottle as "an uninhibited pair of legs in spangled trunks standing in a fluff of skirt with a satin sash encircling the 'waist' or neck of the flacon." The bottle is packaged in a jungle green and mauve box, gold lettered and circled with an elastic ribbon garter.

Queen Helene Cosmetics are putting "Lucky" bath crystals and bubble bath in a decanter suggested for re-use as a lamp base, vase or book-ends. The mold features a large horseshoe. The stopper is filled with colored water to match contents.

Two new "Vaseline" brand products—an eyebrow-eyelash cream and cuticle-and-nail cream—have been introduced in special-mold glass jars, decorative for dressing-table use.

Another very graceful mold is the bottle for Yardley's Lotus perfume in a shape suggested by the exotic scent

of the perfume it contains. The decorative cap for the bottle is a combination of ivory and clear transparent plastic.

Plastic bottles

The squeezable polyethylene bottle is fast becoming a favorite in the cosmetic industry, with several more shampoos, deodorants and colognes in this type of container.

First to adopt an amusing private mold of polyethylene is Tussy Cosmetiques, whose "Ginger Spice Man," so popular in the company's soap sculpture by this name, is to be interpreted in polyethylene this fall.

In the form of a squeeze-bottle, the engaging gentleman will doff his hat-like closure made of urea formaldehyde and when squeezed will puff "Ginger Spice" dusting powder, atomize cologne or sprinkle "Bubblessence" into the bath, depending upon contents. This efficient flexibility of use for almost any cosmetic product is achieved by the friction-fit plugs in the necks of the bottles, interchangeable for dispensing either powders or liquids. In making use of one mold to produce a container that can hold and dispense a variety of products, Tussy has been able to reduce materially the cost of a mold which might have otherwise been prohibitive. The squeeze-bottle "Ginger Spice Man" is appealing to all ages and will be a particularly acceptable gift item for children, because it will not break and becomes a permanent toy for bathtub players.

A handsome new acetate container is that adopted for Coty's Chypre talc, marbelized with soft shades of green blended into a light gray background, enriched with imprinting of the Chypre monogram in gold. A gold, push-button sifter closure tops the container.

Collapsible tubes

A type of container that may be coming into its own for glamour packaging is the collapsible tube. Widely used for men's toiletries, tubes only recently have been gaining favor for women's toiletries such as creams, shampoo preparations, deodorants, etc.

Marie Earle has introduced a new cream deodorant in a tube which the company promoted as easy to tuck in a week-end case, in a handbag or for the medicine chest shelf. The tube is delicately printed with floral design and topped with a ball-shaped plastic cap to give it a salon look. Further eye appeal is provided by packaging the tube in a transparent folding box (see MODERN PACKAGING, April, 1948, p. 165, and Oct., 1947, p. 160).

Tussy has introduced two tube packages for a cream deodorant and a cream shampoo, very attractive in pink and black decor and promoted for convenience in traveling—containers that can be tucked away in small space and are resistant to breakage.

Costs

Mounting costs of packaging materials are the concern of every cosmetic manufacturer today and there is much study to keep within (*Continued on page 208*)

TRAVEL PACK for men—a two-item Yardley set planned for popular-price, large-volume sales.

MEN'S PACKAGE to introduce JeanNaté shaving preparations. Items are in polyethylene pouch.

TRANSPARENT LID on magenta, extension-edge box gives eye appeal to Ogilvie Sisters products.

FROZEN FOODS IN TIN

A California packer successfully freezes and markets both fruits and vegetables in consumer-sized lithographed cans

SQUARE CAN known as "asparagus tin" is the standard package for Dainty Pak products. Lithography—which eliminates labeling—stresses in design and lettering that these are frozen foods, not to be stored without refrigeration.

Tinplate for packaging is not unknown in the frozen foods industry. The tin container has long been used as a bulk package for institutional sizes; cans have been used for certain seafoods and recently the 6-oz. can has come into prominence as the package for vacuum-processed orange juice concentrate.

Generally speaking, however, paperboard in one form or another has been almost universally accepted for the consumer-sized fruits and vegetables which comprise the great bulk of the frozen pack merchandised at retail. Against the undoubted protection of a rigid metal container and the advantage of fast freezing, there is the matter of cost and flexibility of inventory, the need for a different type of filling and closing machinery and—above all—the fear that frozen foods in cans would not be recognized as such and might be stored by either the dealer or housewife without refrigeration, with disastrous results.

There is no indication that this situation is going to change suddenly. But it is interesting to note that one packer has become an outstanding advocate of freezing in tin and is currently marketing successfully a wide range of consumer-sized fruits and vegetables in what is known in the canning trade as the "square asparagus tin."

The company is the Pacific Grape Products Co. of Modesto, Calif. Stanley F. Triplett, its president, has had long experience as a canner, particularly of fruits and fruit cocktail. He has spent several years developing his freezing process and his company has been freezing commercially in the tin can for two years under its Dainty Pak brand, with sliced peaches in syrup as the first item.

The process employs a continuous immersion freezer which was developed by the company and locally produced for it.

Originally confined to a few fruits and berries, the Dainty Pak line recently has been expanded to include vegetables. It is marketed in various areas throughout the United States and is exported as well. For producing frozen foods primarily, a new plant close by the Modesto Refrigerating Co. was completed by Mr. Triplett a year ago.

Advantages claimed

To support his contention that freezing in tins gives a superior product, Mr. Triplett advances the following reasons:

"First, by sealing in tin we are able to draw a vacuum, pulling out virtually all of the air from the product. This absence of air prevents dehydration and oxidation and it forces the syrup immediately into the fruit, giving a uniform degree of sweetness throughout the product. With oxidation prevented, the product can be held for a much longer time without turning dark than if it were in an unsealed container. The prevention of dehydration, particularly in vegetables, helps retain all of the volatile oils and flavors. In the sealed container there is no possible contamination and the product cannot take on the flavor of the walls of the container itself or the odors from other products stored in the same room or vicinity.

"Second, freezing in tin permits the most rapid method of freezing possible because it permits the product to be immersed in brine, the degree of the refrigeration being virtually unlimited.

"Third, freezing in tin prevents leakage. In case of slight thawing, either in a car, warehouse, store or after the housewife has taken it home, the can will not leak and cause a messy condition.

"Fourth, the tin acts as an indicator of any spoilage, as the can will puff out from any gas production resulting from spoilage. We are installing on each can a device which will protect against the possibility of bursting the tin.

"Fifth, frozen foods in tin hold their shape and do not buckle, bulge or become distorted. They do not slither in a cold-storage warehouse."

Can's protective device

The protective device in the can consists of the perforation of the bottom with six small vent holes, which are then sealed with wax. Besides guarding against bursting, this device, while enabling the hermetic sealing of the cans under vacuum, also provides protection by preventing the possibility of the cans being heated and then stored dry. If such were done, the wax would melt under the heat application and unseal the holes. This device, Mr. Triplett believes, serves as a warning that the contents have not been cooked and as a signal that the contents are not to be processed in the container.

The company concedes that the tin itself will probably be in most instances a little more expensive than the carton, but maintains that the amount of the differential between the two would depend on the efficiency of the operation in a particular plant. Certain economies in handling have been worked out.

The company helps guard against mistaking the frozen for non-frozen canned goods by labeling. The lithographed design has a heavy edging of frost all around the top and bottom edges and the bold words, "Frozen Fresh Foods," on the front panel have a frosty shadow. The warning, "Keep Frozen," is prominently displayed on top and side panels and the instruction panel on the back ends with, "Caution: Keep frozen until ready to serve." Thus every side of the can but the perforated bottom has the warning.

All can bodies are printed identically; they bear no variety designation. The variety identification appears only on the can top, which is applied conventionally after the can is filled. This is an important economy measure, as it enables the company to stock a single can usable for any product and only the lids need be selected according to the particular product being packed. The packer's labeling operation is completely eliminated.

Items currently being frozen in the cans are sliced Elberta peaches, peeled sliced apricots, sliced and whole strawberries, boysenberries, whole peeled figs, fruit salad, melon balls, asparagus, brussels sprouts, cauliflower, broccoli, lima beans and peas.

Mr. Triplett's contention that the vacuum sealing gives superior protection, it should be noted, is supported by some outstanding authorities on freezing research and processing.

Dr. Maynard A. Joslyn of the University of California Food Technology Department has stated in papers before technical meetings that a container completely impervious to water-vapor transmission (tin or glass) and capable of being vacuum sealed offers the best assurance of eliminating the damaging effects of oxidation upon frozen fruits.

Likewise, demonstration packs were successfully

FILLING open tins with peas and other products is a simple hand operation. Cans move on a conveyor with tops flush with filling-table level.

SEAMER is of the conventional type used in hot processing of canned foods. It feeds the lids, which are lithographed, from a stack and seams them on filled cans at the rate of 60 a minute.

frozen in sealed glass jars at the Department of Agriculture's former Frozen Pack Laboratory in the Pacific Northwest under the direction of H. C. Diehl, now director of The Refrigeration Research Foundation. Sealed glass jars have very often been used successfully in home freezing.

Contents protection

The question of the adequacy of protection for frozen foods, especially non-acid vegetables, in hermetically sealed tins without previous cooking has been raised. However, this was refuted by Dr. M. J. Copley, director of the Department of Agriculture's Western Regional Research Laboratory, in an address before the Northwest Frozen Foods Assn. a few months ago, in which he reported briefly on botulism in relation to frozen foods.

"Work of the laboratory and of the Hooper Foundation (of the University of California) has revealed no danger from non-acid vegetables frozen in tin cans," Dr. Copley said. He reported extensive work had been done on frozen peas, limas and asparagus with check packs; the packages were held a year, then thawed and the contents checked.

Basically, the Triplett process is the same as standard canning where continuous flow-line production is maintained with use of a continuous cooker—only instead of the cans being exposed to a heating process, they are frozen.

Here, briefly, is the outline of the production procedure at Pacific Grape Products:

After undergoing the preparation, inspection and blanching procedures generally followed by freezers, the product moves by conveyor belt to the filling station, where the conveyor moves the cans along with tops flush with filling-table level.

The cans then move in two lines to seamers operating at a rate of 60 cans a min. After being sealed, the cans are merged into a single line to be conveyed to the freezer.

The freezer is a horizontal cylinder about 30 ft. long by 12 ft. in diameter, through which the cans are moved along in spiral channels, much as in a continuous cooker, until they are ejected at the other end onto a conveyor belt which carries them to the casing area.

Freezing is by immersion in an alcohol secondary refrigerant cooled ordinarily to minus 36 deg. F. by a primary ammonia system. It takes the cans 45 min. to pass through the freezer at a rate of 120 cans a min.

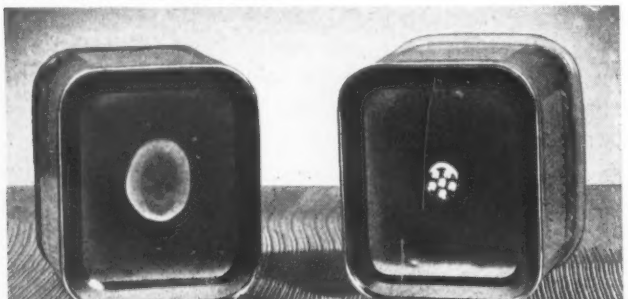
Since the cans are pre-labeled, there is no need for labeling after freezing and they can be immediately cased and the cases palletized for transportation into freezer storage in the adjacent Modesto Refrigerating Co. plant.

Some frozen products also are packed in No. 10 cans for institutional use. These, of course, cannot be frozen in the continuous immersion freezer, but are taken to the refrigerating company's tunnels for freezing and storage.

Although it is apparent that Dainty Pak frozen fruits and vegetables are being marketed successfully, it remains to be seen whether frozen food in tin will win generally widespread acceptance. Some merchandisers believe that consumers are so conditioned to the conventional type of package that they are likely to be confused by tin and resist it.

CREDIT: *Lithographed cans, Continental Can Co., Inc., New York.*

PHOTOS COURTESY PACIFIC GRAPE PRODUCTS CO.



PROTECTIVE DEVICE is six-hole perforation in bottom of can which is sealed over with wax (left). It serves as a warning and vent should can by mistake be subjected to heat by consumer.

CANS VARY only in product identification on the lids. Using a standard body for all products simplifies inventory.

TABLE SPICE KITS

Stock drug vials and plastic poker chip rack make a clever re-usable package for flavoring extracts

Not always is it necessary to design special plastic molds or custom glass to have a distinctive package, if you use your ingenuity and are willing to hunt diligently for what you want.

A particularly good example is the package for liquid flavoring extracts called "Sperb" just introduced by Nandor Szasz, owner of the Favorite Flavors Co., New York.

Mr. Szasz, a food engineer, recognized the consumer need for seasonings and flavorings of herbs and spices in a convenient liquid form that can be added to foods quickly, a few drops at a time. In extract form, therefore, he has developed six liquid spices—allspice, anise, celery, cinnamon, ginger and nutmeg—and six liquid herbs—marjoram, mint, rosemary, tarragon, thyme and garlic.

INGENUITY was the principal ingredient in devising this attractive, convenient package for liquid spices and herbs. It is made entirely of stock supplies.

The problem was to package the extracts in sets that would be convenient for the kitchen shelf or dining table, as well as attractive for counter selling as gift items.

First essential was some kind of a rack to hold each group of six bottles. One day Mr. Szasz saw a plastic rack holding poker chips. This was just the thing, if bottles could be obtained to fit the recesses designed for the poker chips. After further search, he discovered that stock glass vials with threaded lips used for pharmaceuticals could be obtained in just the right size for the poker chip racks.

After that, Mr. Szasz found that it was a simple matter to obtain the poker chip racks from the molder to be used for the extract package and to obtain the desired glass vials.

Next step was to devise a dispensing feature so the vials might be used as shakers. This was done by inserting short glass tubes in the stopper cork which let just a few drops be shaken out. Colored urea screw caps and a narrow wrap-around label, printed in black and aluminum ink, complete the bottle assembly.

Labels were made narrow to clear the tops of the racks, so that all printed matter is completely visible, showing trade name, but with the name o' the spice or flavoring dominating the label for quick recognition on kitchen shelf or table. Each rack holds a set of six extracts. There are two sets, one for herbs and one for spices. Since racks and bottle caps are obtained in several colors, the packages make an interesting color array for selling on the food store counter.

A cellophane bag over each set, tied at the top with a silver cord matching the labels, holds the six bottles and rack together, makes them easy to handle and provides a neat, clean appearance that is so essential for a food product.

The re-use poker chip rack also has the advantage of allowing refills to be sold separately when desired.

Sperb sets have been on sale during the last few months in leading food specialty stores in New York City. Acceptance was immediate from both store managers who were eager for new product ideas and customers who like the convenience of the compact, re-use package.

CREDITS: *Molded racks, Victory Mfg. Co., Chicago. Acetate material, Tennessee Eastman Corp., Kingsport, Tenn. Glass vials, Kimble Glass Co., Div. of Owens-Illinois Glass Co., Toledo, Ohio. Corks, Columbia Cork Mfg. Co., Brooklyn, N. Y. Urea screw caps, Colt's Mfg. Co., Hartford, Conn. Cellophane bags, Comet Envelope & Paper Co., Inc., New York.*

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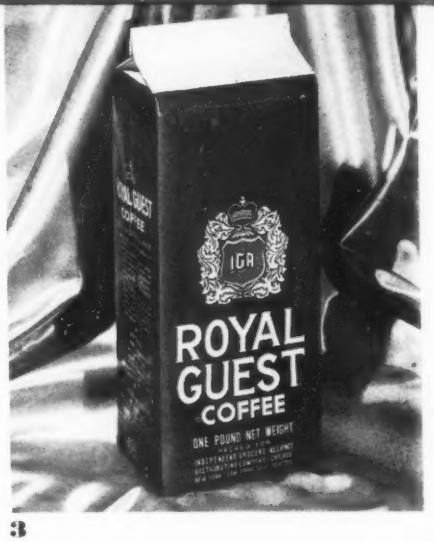

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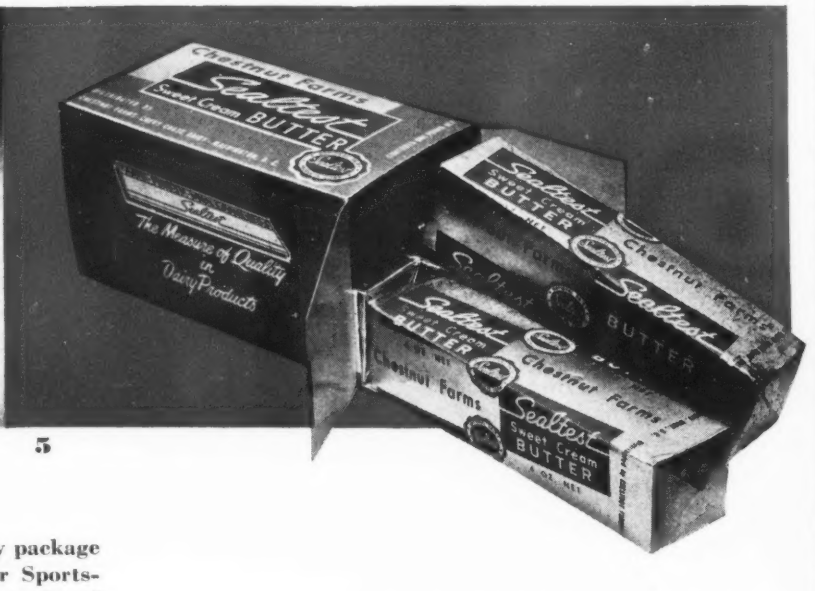

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1 A combination shipping and counter display package has recently been introduced for McGregor Sportswear. The base is made of heavy chipboard, scored and stayed, then automatically wrapped with the plaid cover paper. The transparent cover is made of 0.015 acetate, beaded and formed into shape to fit inside the base. Brand name is printed on the acetate cover in two colors, white lettering with a black shadow. Box, Newton Carton Co., Newark, N. J.

2 Pond's latest addition to its line of beauty preparations is a non-sticky hand cream. The cream is identified in the family of Pond jars by its burgundy red screw-on cap which has the name molded in the top. The same shade of red is used for the printing on the paper label. Three retail-sized jars are being offered selling for 10, 25 and 47 cents plus tax. Jars and caps, Hazel-Atlas Glass Co., Wheeling, W. Va. Labels, Lord Baltimore Press, Baltimore, Md.

3 Royal Guest coffee, nationally advertised by the Independent Grocers' Alliance (IGA stores), will soon be seen on store shelves in this new paper bag. Carrying out the "Royal Guest" theme, the basic color of the printed bag is a deep purple. The IGA insignia, printed in gold, is the focal point of the intricate crest design on the front. Bags, Arkell & Smiths, Canajoharie, N. Y.

4 The masculine-looking package for C. R. MacKenzie, Ltd., new pre-shave beard softener really has the authentic MacKenzie clan plaid pattern printed on the label and outer paperboard carton. Dark green of the plaid is accented by red colored patches containing item name and manufacturer on the label and on front and back of the carton. Use directions printed on back of label can be read through the clear green liquid. Design, Gilbert D. Snyder, New York. Bottles, Carr-Lowrey Glass Co., Baltimore. Labels, Rode & Brand, Inc., New York. Cartons, (4 oz.) Albert Paper Box Co., Brooklyn, and (8 oz.) Robert Gair Co., Eastern States Carton Div., New York.

5 Sealtest sweet cream butter processed by Chestnut Farms Chevy Chase Dairy, Washington, D. C., is now being wrapped in an aluminum foil and parchment paper lamination (see MODERN PACKAGING, April, 1947, p. 106). The foil design is printed in red, white and black colors, repeating the design of the outer carton. Wrap, Reynolds Metals Co., Richmond, Va.

6 Buckeye Aluminum Co.'s "Blue Heaven" doll house is actually a printed corrugated carton containing a gift set of cooking utensils. Designed to hold compactly the

PAGEANT

different sizes and shapes of pots and pans, it also doubles as a display and carry-home package. The carton is shipped complete to the dealer who turns it into this display by folding the scored overlap to make the roof. When purchaser is ready to carry it home, the flap is refolded and carrying handles appear. Carton, The Ohio Boxboard Co., Rittman, Ohio.

7 Paper gift wraps and ribbon ties made by Smith-Stewart Paper Products, Inc., Brooklyn, are smartly packaged in two-color, cellophane-windowed folding display cartons. Designed in a related group, all the cartons have perforated die-cut sections in the tops which can be folded back to form the riser. The ribbon tie package has a cellophane window section underneath the die-cut part so that the ribbons are protected from dust. Red and green printed cartons for Christmas and pink and blue packages for the everyday assortments are available. Cartons, Industrial Packaging Co., Inc., Brooklyn.

8 Bantamac brand sports jackets made by Marcus Breier Sons, Inc., New York, will soon make their appearance packaged in this distinctive, modern style, two-piece shelf box. The box cover paper is lithographed. Three-dimensional lettering of the brand name and the stylized rooster are in red with a pebble-grain-patterned background of gray blue. Side of the cover has the brand name, size, color and style printed for dealer's convenience. Cover paper, Stecher-Traung Lithograph Corp., Rochester, N. Y.

9 An interesting adaptation of the molded squeezable polyethylene bottle has been achieved by Gene Rose, Inc., Dayton, Ohio, in using the bottle for two of its liquid shampoos. The trade name and promotional copy are printed directly on the front of the polyethylene bottle. Directions for use are printed on the back. This printing on polyethylene is done by a patented process. The private-mold phenolic closure is designed to conceal the neck and shoulder of the bottle completely. It screws on the threaded neck of the bottle and on the top of the closure is a small screw-on cap which fits over the actual dispensing opening of the closure. Color of the shampoos, seen through the opaque bottles, serves as part of the decoration. Bottles, Plax Corp., Hartford, Conn. Closures, The Grigoleit Co., Decatur, Ill. Printing, Modern Art Printing Co., New York.

10 New England Syrup, marketed by Fred Fear & Co., is appearing in a new bottle, redesigned for greater consumer convenience and increased eye appeal. Ridged at the top and bottom, it has a smooth straight center for easy, non-slip hand grip. The new shape in contrast to the conventional syrup bottle creates an attention-compelling display when arranged on grocers' shelves. Label design enhances the height of the bottle. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Cap, Phoenix Metal Cap Co., Chicago. Label, I. Kunin Co., Brooklyn.

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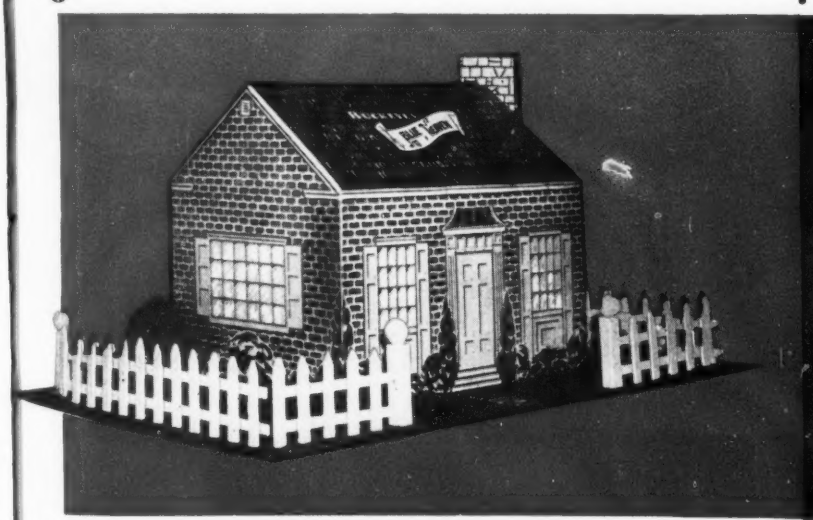

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MODERN

11 A departure from the conventional marcaroni product packaging is this tray and cellophane overwrap package for Bay State Macaroni Mfg. Co.'s brands of White Spray and Bay State spaghetti and macaroni. The paperboard tray gives the necessary rigidity to keep contents from breaking, while the printed cellophane overwrap offers protection from moisture and product visibility. Overwrap, Diaphane Corp., Philadelphia, using Du Pont cellophane. Tray, Whitney & Co., Leominster, Mass.

12 Corning Glass Works, makers of ovenproof Pyrex ware, recently put on the market their new Double-Tough glass tumblers. They are packaged in sets of eight in different sizes. Designed for sale in drugstores, five-and-tens and supermarkets, the sturdy patent-coated chipboard folding cartons are printed in two colors, gray and yellow. Style, size and number are clearly indicated on all four sides for dealer convenience in stocking and display. Cartons, Container Corp. of America, Chicago.

13 Q Products Corp. markets this package, complete with 31 bob pins, polystyrene case and four-color card, for 10 cents. Because women have difficulty distinguishing the light and dark pins through the polystyrene case, one pin is attached to the card. Cards for light pins are printed with a green Q; for dark pins, with a red Q. Color of polystyrene caps on vials varies for different colored pins. Vials and caps made by Robert Y. Grant, Inc., Fitchburg, Mass., of Dow polystyrene.

14 The new shipping carton for Remington "Blue Rock" targets is said to reduce greatly the breakage in shipping and handling formerly experienced. The caution, "Fragile as eggs...Handle with care," contributes to better care in handling. The carton contains 204 targets—12 stacks of 17 each, separated by inner dividers—and replaces the old double carton containing two single cartons of 135 targets each. Carton, Inland Container Corp., Middletown, Ohio.

15 Introduced primarily as a holiday item for the 1948 Passover season, this symbolic decanter package for Manischewitz wine resulted in even faster turnover than the customarily heavy holiday sales in the conventional bottle. Post-holiday demands for the wine in the new container resulted in its use as a year-around item. The

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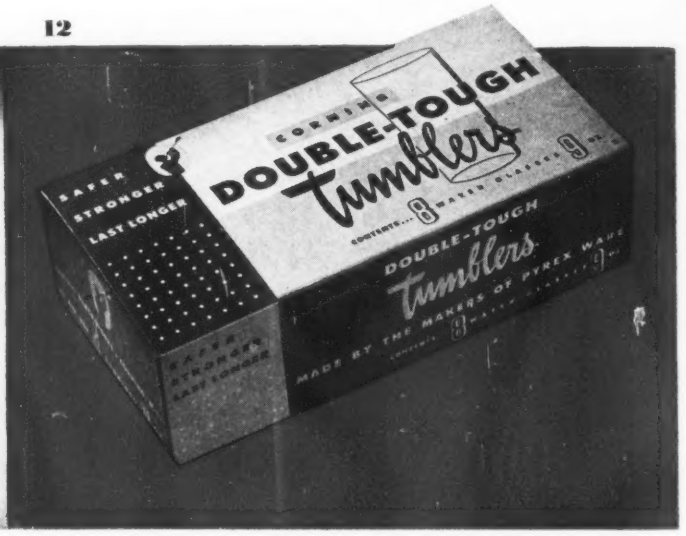

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PACKAGING PAGEANT

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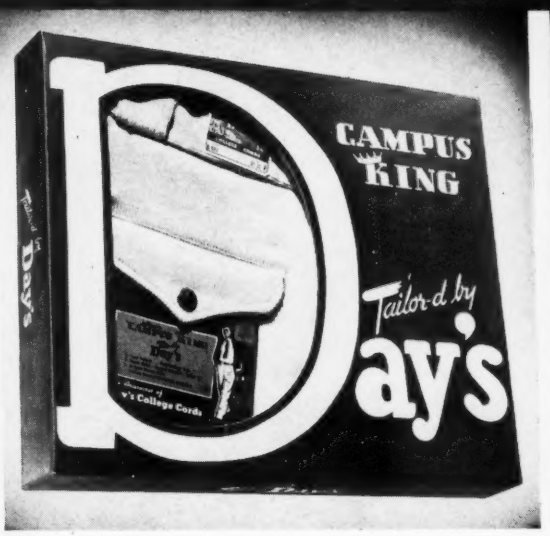

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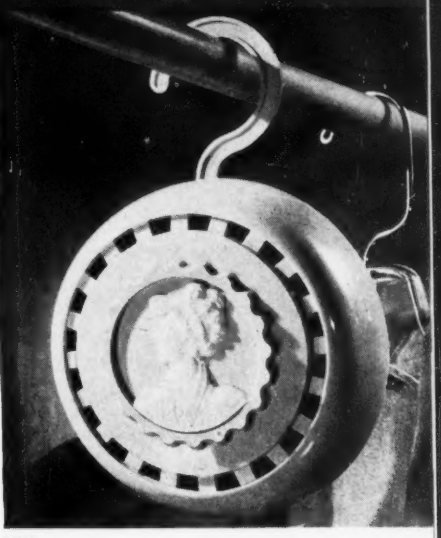

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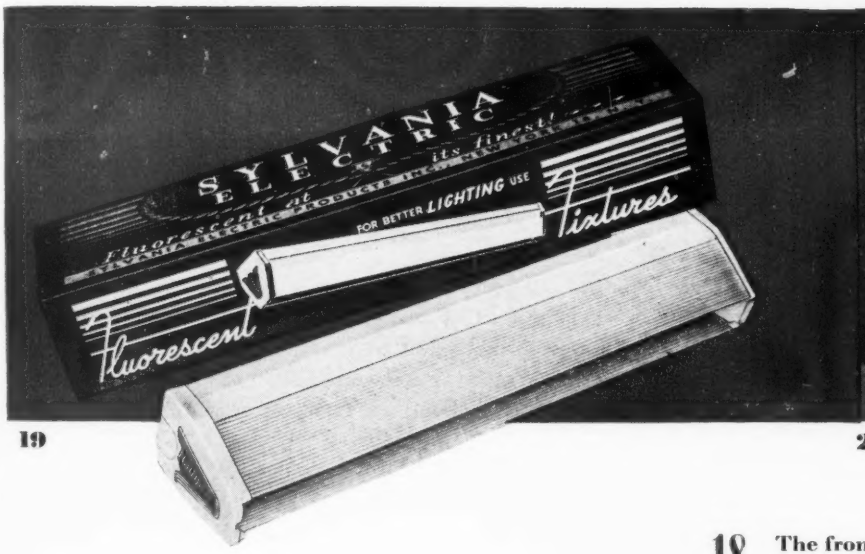

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Monarch Wine Co. feels that the decanter is definitely a factor in increasing off-season sales. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Labels, Consolidated Lithographing Corp., Brooklyn.

16 Plastic and velvet are combined to form this gift box for Colonial Mfg. Co.'s rings. The ivory-colored base is molded of urea, with the "Customized" name molded in the base and color wiped in. The base has a slot at the bottom which permits the insertion of the company's guarantee. Box, Arrow Mfg. Co., Inc., West New York, N. J. Urea, American Cyanamid Co., New York.

17 Campus King corduroy trousers, made by Day's Tailor-d Clothing, Inc., Tacoma, Wash., are believed to be the first packaged trousers in the men's wear industry. Half of the cover of the folding carton is taken up by the cut-out letter "D" to provide a window, covered with cellulose acetate, through which the trousers and a descriptive label and size ticket are visible. Box, Eagle Paper Box Co., Tacoma, Wash. Acetate, Celanese Plastic Corp.'s Lumarith.

18 The front of this functional package for Puro moth repellent and deodorizer is molded of cellulose acetate. Attached to the metal cover forming the back is a hook, also of cellulose acetate, which provides means for hanging the case when turned upward. At the other end of the hook is a hole by which the case may be hung over a nail on the closet door when the hook is folded down. Case molded by Gerber Plastic Co., St. Louis, Mo., of Tennessee Eastman's Tenite.

19 Redesigned as a result of consumer-appeal tests, this two-piece telescope carton of corrugated board for packaging Sylvania Electric Products' Peabody fluorescent lighting fixtures doubles as a counter display unit. Outer lamination of the carton is of die-impregnated jute. The design is printed in light blue, contrasting with the dark blue cover stock. Lettering is in bright yellow. Product is reproduced on side of cover. Carton, Hinde & Dauch Paper Co., Sandusky, Ohio.

20 New "no deposit—no return" bottles are now used by Roman Cleanser Co. for its sodium hypochlorite household bleach. Available in three sizes—32, 64 and 128 oz.—the amber bottles carry the brand name in blown-in lettering. Wide space is provided for the four-color label. Bottles, Owens-Illinois Glass Co., Toledo, Ohio.

SENSE FOR HUMUS

Polyethylene bags and liners for the delivery of peat humus and potting soil with bacteria and moisture content intact solve a long-standing problem

POTTING SOIL in transparent polyethylene bag is preserved indefinitely as moist and rich as the day it was prepared. Previously it had to be dehydrated before packaging, as the moist material would rot paper containers

A packaging dilemma that had haunted plant nurseries for years is now reported solved with new polyethylene bags that are revolutionizing the packing of potting soil and peat humus in its natural form, ready to use. These new bags not only maintain the full efficiency of soil conditioners for the customer's satisfaction, it is said, but simplify storage and transportation problems for the dealer.

In the past the dealer-customer relationship was the crux of the packaging problem, since nurseries were faced with equally unsatisfactory alternatives in the marketing of peat humus, probably the most desirable plant-growing medium known in nature. Peat humus—as good gardeners know—is a combination of peat, which is an underwater deposit of residue from natural growth, and humus, which is an organic material in certain stages of decomposition. Thus, consisting of decomposed organic and vegetable matter, this material is a natural soil conditioner and builder and, as a carrier of beneficial soil bacteria, promotes the healthy growth of plant life.

However, to date it has not been available to the average customer in this natural form because of its chemical and material characteristics. For best results, the moisture content of the soil builder should be maintained between 60 and 70%. At below 40% moisture the bacteria cannot thrive. But this moisture content, as well as the organic activity inherent in peat humus, quickly causes the decomposition of ordinary packages of paper, certain coated papers or paperboard. To surmount this barrier and package peat humus for even very limited periods or to reduce transportation costs, it has been necessary to dry out the material at elevated temperatures. By doing so, the purpose of humus was defeated, since the drying process kills much of the bacteria content and remoistening returns only a fraction of its original efficiency. Thus, to obtain fresh humus, the average gardener was forced to make a trip to a nursery.

Now, after two years of research, the Clinton Nurseries of Clinton, Conn., in cooperation with a plastics extruder, have developed for this application heat-sealed packages of polyethylene film. These packages, which are produced from continuous extruded lengths of film side- and cross-sealed to predetermined sizes,

PEAT HUMUS, in the larger sizes, is packaged in multiwall kraft bag with polyethylene liner.

DOUBLE-WALL construction of polyethylene film gives double protection to the contents. Packed at its peak efficiency, the product retains its weight and moisture. Use of slip-in paper label identifies product.

RE-SEALING is readily accomplished by passing a hot iron over the open edges of the bag. A slip sheet of cellophane or of glassine prevents the film from sticking to the iron. The re-sealed bag maintains the product in fresh condition.

PHOTOS COURTESY BAKELITE CORP.

are actually double bags. They consist of double thicknesses of film which serve as an inner liner and an outer bag. They range in capacity from 1 to 4 lbs. of humus. In large sizes, from 10 to 50 lbs., a polyethylene liner is used in heavy-weight, multiple-walled kraft bags.

All contents are hermetically sealed in these polyethylene bags and liners so that the peat humus is packed at its peak efficiency stage and retains its weight and moisture. One of the characteristics of polyethylene which is making it an increasingly important packaging material is its very low water-vapor transmission rate. It is also completely inert. The polyethylene bags will remain intact indefinitely without deterioration; the material is unaffected by moisture and bacteria. The film is pliable and will not stiffen or crack open with age and, in addition, the bags measure up to good packaging requirements in that they provide attractive containers with contents instantly visible.

Thus, the packages provide new advantages for dealers as well as customers. Dealers can order in quantity at wider intervals and save on transportation costs with assurance that the packages can be stored safely until needed. Customers receive a rich soil conditioner and potting soil which comes from the package in better condition than ever before—ready to use, easy to handle, with original quality intact.

Because of the ready heat-sealability of polyethylene, it is suggested that if not all of the contents of a package

STILL PRESERVED at nursery freshness, unused part may be held for use several months later.

are used at one time, it is an easy matter to reseal the bag by passing a hot iron over the open edges, thus preserving the freshness of the remaining contents indefinitely. A slip sheet of cellophane or glassine may be used to prevent the film sticking to the hot iron.

CREDITS: *Film extruded and bags manufactured by Shore Line Industries, Clinton, Conn., using Bakelite polyethylene resin by Bakelite Corp., New York. Kraft bags, Bemis Bro. Bag Co., St. Louis, Mo. Labels, Bordeaux Co., Springfield, Mass.*

How to keep moisture where you want it

THESE are just two of the many successful products now going to market in **Pliofilm** — Goodyear's great transparent packaging film.

Pliofilm is air-moisture-liquid-proof. It's the perfect answer to the moisture problem, effectively sealing moisture in or out, just as the contents require.

Apricots and aspirin, meats and potato chips, sauerkraut and spinach — **Pliofilm's** magic moisture control keeps every type of product at a quality peak till it reaches the consumer.

If moisture's your packaging problem, **Pliofilm's** your package. Write for further details. Address: Goodyear, Pliofilm Dept., Akron 16, Ohio.

Pliofilm—T.M. The Goodyear Tire & Rubber Company

Pliofilm keeps moisture out.

This **Pliofilm** protected carton keeps chips fresh and crisp, prevents sogginess.

Pliofilm keeps moisture in.

Sealed in its own brine, moisture-laden sauerkraut holds its tangy taste.

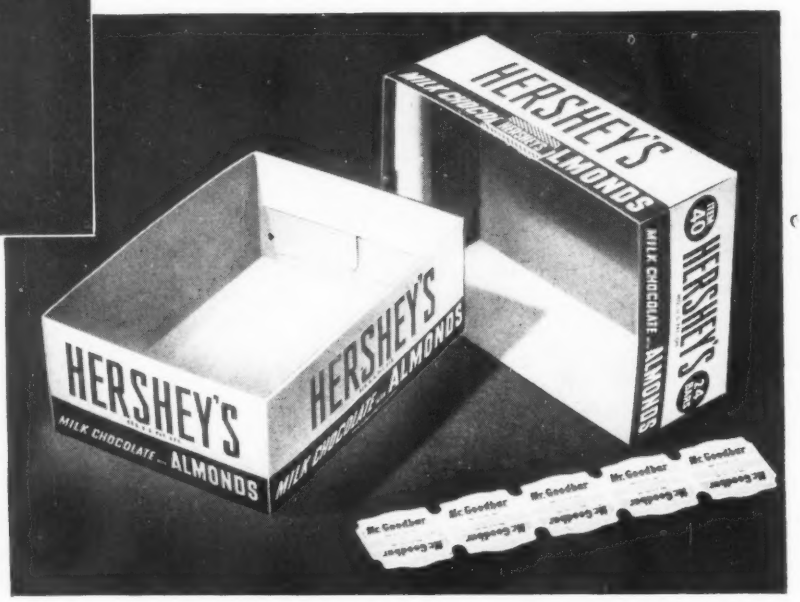
Everything is better in Pliofilm

3-way protection against air, moisture, liquids

GOODYEAR

THE GREATEST NAME IN RUBBER

THERMOPLASTIC LABEL joins the side of lid and bottom of the box base on each side. The seal is easily broken by slitting with the thumbnail. It replaces a wrap-around label that was glue sealed continuously all around the base.



NEW SIMPLIFIED CARTON is pre-printed, eliminates overwrap label. In foreground is shown a sample strip of thermoplastic labels similarly used on Mr. Goodbar candy boxes.

HERSHEY'S BOX SEAL

Mechanical application of thermoplastic spot labels eliminates wrapping operation, simplifies the package, lowers costs and increases dealer convenience

Adoption by Hershey Chocolate Corp. of a thermoplastic roll-type label as a tamperproof seal for Hershey chocolate candy-bar boxes marks the extension of this type of label—widely used in bakery and produce packaging—into an important new field. It is also significant of two current trends in packaging generally: greater consideration for dealer convenience and cost-cutting simplification of packaging procedures.

Seven specially built automatic machines are now in operation in the big plant at Hershey, Pa., applying the no-glue labels to the thousands of cartons of candy bars which roll out of the plant each day. Each machine can seal 36,000 boxes during an 8-hr. shift, running at a speed of 75 boxes a minute. Labels are accurately cut off and positioned on each side of the box base, folded around over the side and heat sealed in one continuous operation. The machines are adjustable so that runs of various-sized boxes can be handled quickly and with minimum change-over.

The new machine replaces one which formerly folded and glued an extended edge of the lid-covering paper completely around all four sides of the base. The new method provides a tamperproof seal equally effective by sealing at only two points.

At the same time, the 24-bar box has been changed to a full-telescope, two-piece box. Putting the reinforcing tabs at the base of the bottoms and on the sides of the lids strengthens the box all around and facilitates the application of the seals and the seals keep the box from buckling when filled. In addition, the design of the machines is such that bulging boxes and boxes with lids not quite in position are carefully

and continuously compressed just before the seals are applied. Pre-printed, white patent-coated board (0.021-in.) blanks are automatically assembled by machines at the Hershey plant. External design of the box is essentially the same as that of the old box, but the old box had four elements: the bottom, the telescoping lid (both made of 0.032-in. plain chipboard—a lower grade of board and less strong than white patent board—with stayed corners), the printed label covering the bottom and the printed cover label that was glued over the lid and sides of the bottom of the box.

The old package was a source of annoyance to retailers who had to open it. It was so well sealed that to open it the dealer had to slit the cover paper with a knife blade in order to free the lid from the base. He can open the new box in an instant simply by running his thumbnail across the two seals. From recent reports, dealers appreciate this convenience feature of the new box.

"Considerable economy" has resulted for Hershey according to I. H. Slesser, purchasing agent. There was a tremendous inventory and storage problem involved with the old boxes. The purchase and delivery of the component parts—the boxboard, the rolls of paper used to stay the corners, the adhesives and even the labels (which were printed in Hershey's own printing plant)—had to be carefully coordinated.

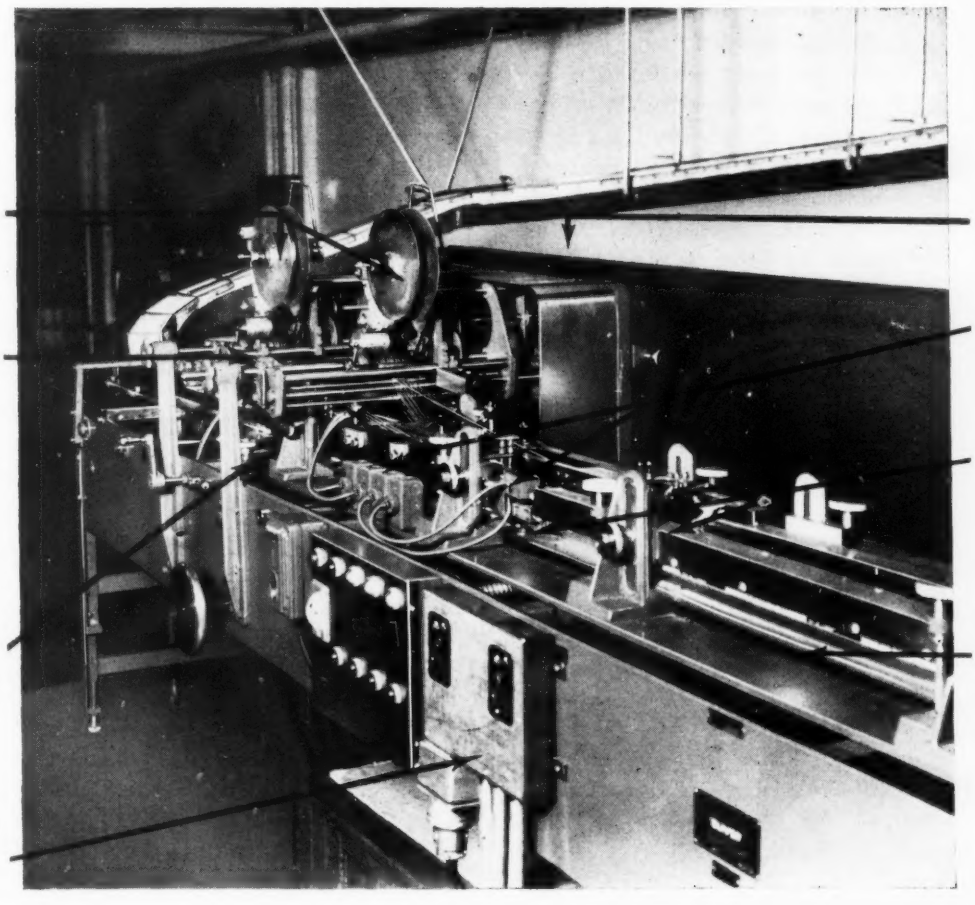
In contrast with the requirements for the former set-up, inventories of the printed box blanks and the rolls of seals—the only two components of the new boxes—are easily maintained. Orders are placed in large quantities so that the supplier can schedule long runs and keep the cost low.

Floor space opened up by the removal of the staying machines, the box-covering machines and the replacement of the large rotary-type labeling machines with the new and smaller labeling machines is sufficient to allow five more chocolate-bar wrapping machines to be added to each packaging line.

From an efficiency standpoint, the layout and operation of the individual packaging lines have been simplified. Set-up and clean-up time for the thermoplastic-labeling machines are almost nothing since there is no handling of adhesive mixtures, no problem of cleaning up sticky rollers.

The packaging department of the Hershey Chocolate Corp. is an impressive sight. Individual packaging lines are approximately 60 ft. long. On one side of each line, conveyors carry unwrapped chocolate bars to 14 wrapping stations. On the other side, conveyors

MACHINE that applies labels is specially adapted to box-sealing job. Boxes enter on the long gravity overhead conveyor, pick up two labels from rolls and pass through series of heater blocks which alternately activate the thermoplastic labels on each side. Brushes firm the labels while adhesive sets. The Hershey plant has seven of these machines, each capable of sealing 36,000 boxes on an eight-hour shift.



BAR-WRAPPING department fills the empty cartons delivered on conveyor belt in foreground and sends them on to the new sealing machines. There are 14 bar-wrapping machines in the lines, each being operated by two workers.

bring the lids and bases from machines which fold and glue the blanks, past the bar-wrapping stations and then on to the new labeling machines. Bar-wrapping machines, situated in the center section, are operated by two uniformed workers. One girl feeds the bars into the machines, inspecting each one for size and weight; the other fills the boxes with wrapped bars.

Speed of the conveyor lines carrying the filled boxes is synchronized to the speed of the labelers. From the end of the last wrapping station, the conveyor is elevated steeply to an overhead position so that the filled boxes move into the labeler by force of gravity. Approximately 50 ft. are taken up in this elevating and a subsequent S-curve in the conveyor before the intake feed of the labeler is reached. This distance has been found by Hershey's engineers to be adequate for keeping the boxes moving continuously into the machines.

Rate of speed at which the boxes enter the machines—bottom side up and end to end—is constant. It is regulated by a trip arm in the intake feed which releases one box at a time into a metal holding pocket of an endless chain. Another trip arm activates the intermittent action of the labeler controlling the cut-off mechanism for the roll-type labels.

A guide bar over the top of the boxes presses the bottoms closely to the covers as they move forward. An automatic slip clutch in each machine operates whenever an improperly filled package starts under the guide bar, delaying receipt of incoming boxes until the imperfect box is removed.

Labels come in rolls of 10,000. There are two rolls mounted on each machine in staggered positions approximately 15 in. apart, the second slightly behind the first. As the feed roll unwinds, the seals in strip form pass between two rollers, one of which has guide pins which position the seal for the cut-off by catching the die-cut edges of the strip. A drop knife cuts off the individual seal that measures $1^1/_2$ by $1^5/_8$ in. It is caught between two parallel sets of spring wires which carry it to the point some 8 in. away, where the box comes to the first sealing station. There the seal is picked from the wires by the moving boxes and positioned with the thermoplastic side down on the box as the first heater block sinks against the upturned bottom.

Heart of the machine is the point at which the seals are applied to the boxes. There are altogether 16 110-volt elements in the series of four heater blocks for each side. Thermostatic control of each heater block regulates its temperature from 250 to 300 deg. F., depending upon which block it is in the series. One of the reasons for the staggered position of the holding wheels for the seal rolls can be observed when the boxes are watched going through the machine. The heater blocks are arranged along the sides of the feed path so that only one side of the box is exposed to heat at a time, thus reducing the chances of melting the chocolate bars within.

The first heater blocks are made of aluminum and have double elements to reach a temperature of 250 deg. F., at which temperature the seal becomes slightly tacky. The amount of pressure applied by these blocks is less than that of the second and third series. The blocks are mounted over the feed path of the boxes and

held in position by stud bolts and springs which allow them to drop on the seal and upturned bottom.

After leaving the first block, the box with the seal adhering lightly to the bottom moves to the second series of blocks, where the seal is automatically folded around the edge to the side of the cover by means of metal guides on the sides of the feed path. At this station heat is applied to both top and sides, increasing the degree of tackiness. These blocks are made of brass and pressure is increased, particularly of the top block, although the temperature remains the same. The side block has two heating elements in it.

The third series of heater blocks, with one element in the top and one in the side, has the heaviest pressure and is also the hottest (300 deg. F.). The control panel on the front of the machine has lights for each element in the heater block so that the operator may tell at a glance which ones are heating to meet the required temperature.

During the pilot operation of the first machine, there was some difficulty in keeping the seals from slipping as they were applied. Careful regulation of temperatures, an increase in the size of the seal and a revision of the thermoplastic formula overcame this difficulty.

After the boxes leave the last heater block they travel approximately 42 in. beneath brushes mounted on the sides which smooth down any loose edges of the seals and cool the boxes. Sealed boxes are finally shunted onto belt conveyors that lead to casing tables.

Although double seals are now being used for the Hershey boxes, similar machines are being built to apply single labels, address stickers and other types of labels. Sizes of boxes used by Hershey range from $4^3/_4$ in. wide, 4 in. long and 2 in. deep to 8 in. wide, 10 in. long and 4 in. deep. (Actually, the labeling machines have a considerably greater range of sizes.)

The two-color combinations printed on the boxes vary according to type of chocolate bars being packaged—yellow and brown for almond chocolate ones, brown and silver for milk chocolate and yellow and red for Mr. Goodbars, another Hershey product.

CREDITS: *Seals and seal-applying machines, Oliver Machinery Co., Grand Rapids, Mich. Boxes, National Folding Box Co., Inc., New Haven, Conn., and Container Corp. of America, Chicago, Ill. Bar-wrapping machines, Package Machinery Co., East Longmeadow, Mass. Box set-up machines, National Folding Box Co., Inc.*

HEAT-SEAL LABELS ON BOX ENDS

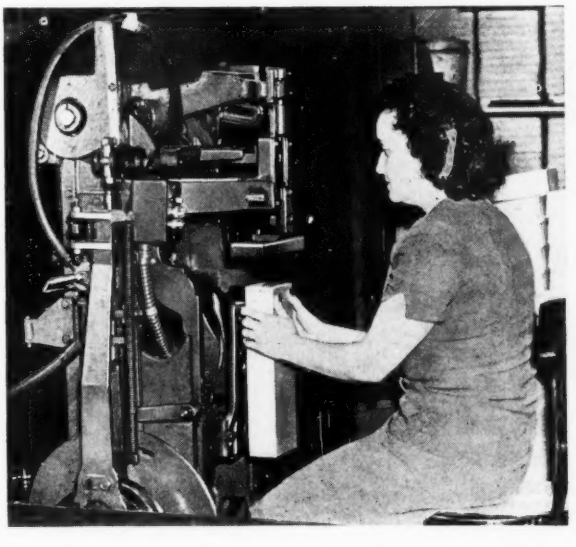
One of the first instances of thermoplastic end labeling of set-up paper boxes may be found at the American Thread Co., Fall River, Mass., where a thermoplastic-labeling machine is being used to apply paper labels with the "delayed action" type of heat sealing to bulk cartons for spooled thread.

The company reports finding the same advantages in this operation that were previously demonstrated in the use of the machine elsewhere in labeling bottled and canned goods.* It avoids all handling of liquid adhesives and saves four to five hours' production time each week formerly devoted to cleaning up the machine. According to Victor A. Jones of the American Thread Co., it makes a fast, clean operation.

The semi-automatic machine has a capacity of about 60 labels per minute. (A high-speed automatic machine by the same maker, used in the bottling field, applies 300 labels per minute.) The machine operator merely positions the empty box end, as shown in the illustration. Labels are delivered and applied by a heated vacuum plate. The thermoplastic used has the quality of remaining tacky for an interval after it has been activated by heat in the vacuum plate, so that it needs no further heating after being applied to the box. The machine has a pre-heating timer, operated with an alarm-clock mechanism, which starts the heating unit and brings it automatically to the correct temperature which is desired at the start of the day.

* See "Thermoplastic Labeler for Bottled Products," MODERN PACKAGING, Sept., 1946, p. 128.

CREDITS: *Machine, "Pony Label-Dri," New Jersey Machine Corp., Hoboken, N. J. Labels, "Thermo-Kote," Nashua Gummed & Coated Paper Co., Nashua, N. H.*



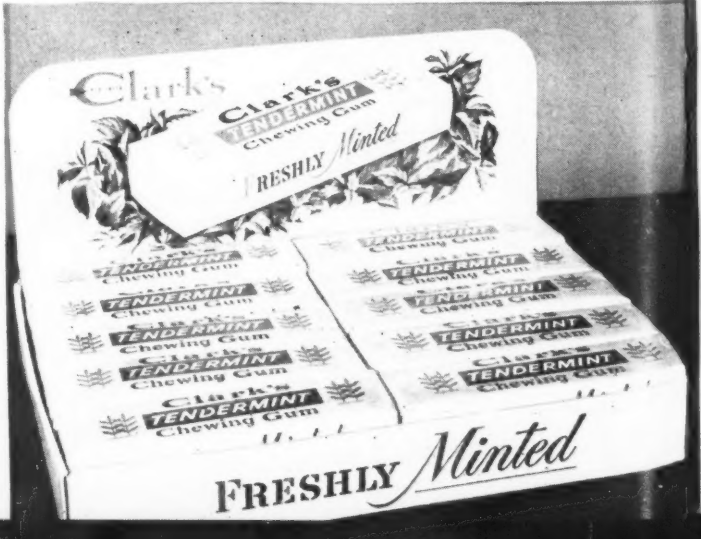
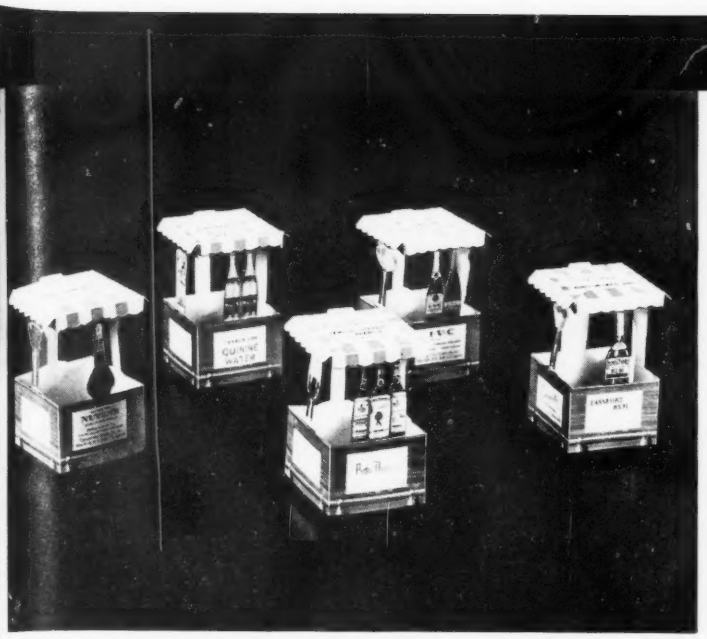
This tri-dimensional motion display introduced by Chicago Electric Mfg. Co. dramatizes the cooling power of their Handybreeze pre-packed home fans. When the fan, placed on the display, swings to face the thermometer, the temperature reading drops from 90 to 60 deg. The rise and fall of temperature reading is controlled by a hidden elastic cord that links the paperboard mercury line with the fan. An easel holds Mammy on her perch. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

Buffing wheels and compositions introduced by the new Hardware Products Div. of Divine Bros. Co., Utica, N. Y., are a completely packaged line, sold to retailers in a two-color display carton. Packaged with each buffing wheel are flanges and a buffing manual; compositions are packed in collapsible tubes. Line drawings on all panels show the use of products. Display, Earlville Paper Box Co., Inc., Earlville, N. Y.

Rather than clutter up the display with promotional copy, this simply designed counter card for Meds relies upon the carton itself for a substantial amount of its sales message. Die cut and scored, it is easy to set up and requires only a small space on the druggist's shelf. One carton is placed in the display, four stored in back. Display, Ketterlinus Lithographic Mfg. Co., Philadelphia, Pa.

Display

Inexpensively produced in one piece, this molded wood trademark plaque used as a promotion piece for cosmetics by Courtley, Ltd., gives the appearance of being expensively produced in cast metal and solid wood. The Courtley trademark and bottle closure, the horses heads, are featured in bas relief, finished in burnished gold background. Copy is raised and finished in gold. Frame simulates bleached wood. Display, Syracuse Ornamental Co., Syracuse, N. Y.

Completing the national advertising program for Clark Bros. Chewing Gum Co.'s Tendermint gum is this counter display carton printed in four colors with a halftone process. Made of a special clay-coated board, its clean whiteness offers an effective surface for the brilliant yellow, green, red and black inks. Varnish coating adds a glossy sheen. Delivered flat, the cartons are machine glued at Clark Bros. Display, The Ohio Boxboard Co., Rittman, Ohio.



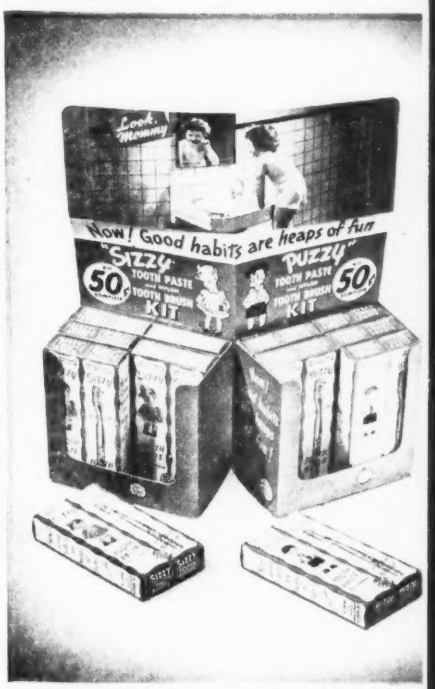
A series of five different displays, each designed as a small bandstand with peppermint-striped awning, is Canada Dry's newest idea for promoting its various wines and liquors on the tables of cafes and dining places. Each display shows bottled product on one side and appropriate drinks on the other three. Made of paperboard, the displays are gaily printed in nine colors. Displays, James N. Johnston, Inc., New York.

The usefulness of this display for Glidden's "Time-Tested" products is increased through the use of interchangeable riser pieces. The back of the display is so die cut that different cards can be inserted to feature different products: "Glidden 1-Cent Varnish Sale," "Glid-N Handy Home Helpers" and "Glidden House Cleaning Special." Shelves of the display are filled with the item featured. Construction of this lithographed shelf display is extremely strong and rigid to hold filled cans or bottles. Display, Forbes Lithograph Mfg. Co., Boston.

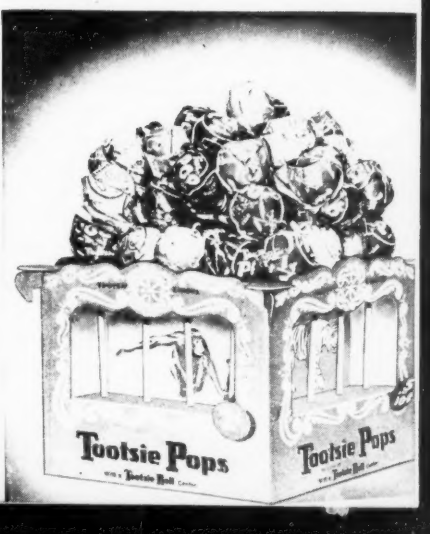
Gallery

Piled into circular bins made of acetate, these cellulose sponges—"Tot" for baby care and "Plex" for beauty care—create an effective counter display for impulse sales. Paperboard covers fold back to create back piece. Each sponge is in a heat-sealed transparent cellophane bag. Visible through the bag is a four-color lithographed insert. Display, Central States Paper & Bag Co., St. Louis, Mo. Labels, Leeds Sales Co., Inc., Specialty Package Div., New York.

Intricately die cut and scored, this display for tooth-brush and tooth-paste kits for children forms a divided carton—one section holding the "Sizzy" kit for girls and the other section holding the "Puzzy" kit for boys. Cartoon characters of Sizzy and Puzzy, reproduced in full color on the kits, are in black and white on red background, the girl on one side and the boy on the other. Lid that forms back piece shows a child brushing her teeth. Display, Guilford Folding Box Co., Baltimore. Carton kits, F. N. Burt Co., Buffalo.



An eye-catching circus-wagon display, appealing both to youngsters and to adults, is designed to attract impulse purchases for Tootsie Pops. Lions, tigers, monkeys and polar bears appear caged in the wagon. Sticks of the pops form bars of the cage, through which can be seen the figures of the animals. The display, lithographed in four colors, measures 7 by 7 by 5¾ in. Display, Display House, New York.



PACKAGING INSTITUTE

Tenth annual forum in New York, Oct. 14–15, will be built around that all-important problem today—packaging costs

The theme, "Wasted Packaging Dollars and How to Avoid Them," is the timely and definite keynote for the Tenth Annual Forum of the Packaging Institute, which will meet at the Hotel Commodore, New York, Oct. 14 and 15.

A tentative program, built around the theme of avoiding waste in packaging, has been outlined by A. F. Stevens of the Borden Co., program chairman, who worked closely with Dr. L. V. Burton, executive secretary of the Institute, in the selection of the topics to be discussed. The tentative program is the result of teamwork within the organization and a direct reflection of the packaging problems that are at present uppermost in the minds of the membership. At the same time, it is felt, the general theme is one which evidences a long look ahead, appropriate and useful no matter what may be ahead for the industry of the country.

The list of speakers is not being announced until the program is fully completed. The Institute will draw on its own membership to a large extent, particularly so in the case of the several panel discussions, but invitations have been extended to a number of qualified outsiders for the treatment of special subjects. A speaker from Washington has been invited to discuss the packaging problems arising from the greatly accelerated national defense program.

The three standing committees—Technical, Standards, Practices and Advisory Service—will meet on Wednesday afternoon, Oct. 13, and the Board of Directors will have a dinner meeting the evening of Oct. 13. Registration will begin at 8:30 A. M., Oct. 14, and the first general session will be called to order by President Mason T. Rogers at 9:30 A. M. The tentative program follows:

THURSDAY, OCT. 14, 1948

9:45 A. M. *General Session*—Theme address, **"Wasted Packaging Dollars"**

10:20 A. M. **What Is a Packaging Engineer and Where Does He Belong in the Company Organization?**

11:00 A. M. **The Frustrations of the Package Designer, The Packaging Engineer vs. The Designer, The Packaging Committee and Its Job**

12:00 A. M. *Business Meeting, Committee Reports*

12:30 P. M. *Luncheon*—Grand Ball Room
Speaker—**What's Going to Happen to Packaging in the Defense Program?**

2:30 P. M. **Unsolved Mechanization Problems of Packaging**
Panel Discussions: (a) Need for Package Standardization to Get Lower Costs, (b) When Is It Profitable to Develop Special Machines?

4:30 P. M. **How Analysis of Shock Stresses in Glass Containers Leads to Better Shipping Container Design and Less Breakage**

6:30 P. M. *Reception and Cocktails*

7:00 P. M. *Banquet*

FRIDAY, OCT. 15

9:00 A. M. *General Session*—**Statistical Control of Net Weights:** Principles of Statistical Control, Causes of Variations

10:30 A. M. **How Packaging Affects Distribution Costs:** What a Dry Storage Man Thinks About Packages, What a Cold Storage Man Thinks About Packages, Integrating Packaging with Materials Handling

12:30 P. M. *Luncheon*—Grand Ball Room
Speaker: **The Shipper's Responsibility for Damage Claims Prevention**

FRIDAY, OCT. 15

9:00 A. M. *Seminar:* Drugs and Pharmaceuticals
Export Packaging of Pharmaceuticals: Problems of Closures for Hygroscopic Items, Excessive Breakage, Plastic Vials, Leakage, Loss of Volatile Ingredients, Single vs. Double Wall Packers, Single vs. Double Wall Nests, Tight vs. Loose Fit, Wooden Cases, Pilfer Proofing
Machine Operations: What Are the Practical Limits of Flexibility for Semi-automatic and Fully Automatic Equipment? Miniature Packages for Samples, Filling Equipment and the Time Loss in Changing from One Product to Another, Capping and Labeling Equipment and the Time Required for Change-overs

2:00 P. M. *Seminar:* **Package Development**—Three Essential Stages in Package Development, Technical Factors Involved in the Selection of Packaging Materials, How Do We Determine the Amount of Package Improvement Justified by Damage Between Packing Line and Consumer?

2:00 P. M. *Seminar:* **Adhesion Problems**—Proper Care of the Sticky End of the Machine, Adhesives and Their Properties, Polymers, Copolymers and Quadripuses, Container Surfaces Present Adhesion Problem, What an Adhesive Man Thinks About Glass, Paper and Board, Foil Adhesion Troubles and Their Solution

The Packaging Machinery Manufacturers Institute will hold its sixteenth annual meeting at the Hotel Roosevelt, New York, Oct. 12 and 13. Officers and directors will be elected and the organization will hold its annual dinner on Tuesday evening, Oct. 12. Among the discussion features will be a report by President George Von Hofe covering the year's new developments in packaging machinery. Another member will make a report on the subject: "What Our Customers Want in Packaging Machinery."

THE NEW packages are an excellent example of the modern trend toward full-color illustration that carries the shopper's imagination to the end result.

APPETIZING FLOUR

Fisher shifts from non-pictorial packages to colorful carton wraps that suggest the good taste of the finished product

The trend toward appetizing full-color reproduction of end products as a sales stimulant for products that in themselves have no eye appeal is again illustrated in the new cake-flour and pancake-mix packages just being introduced by Fisher Flouring Mills Co., Seattle.

The old packages were effectively designed so far as legible presentation of trade name and product identification were concerned, but they were completely lacking in pictorial illustration. The cake flour was enclosed in a carton and overwrap; the pancake and waffle mix was packed in a multiwall bag. Protection was adequate, but both products suffered by their drabness on the shelf in comparison with more colorfully, more imaginatively packaged competing brands.

THE OLD packages were completely lacking in illustration and, therefore, devoid of any appetite appeal. Other side of the new pancake-mix package carries full-color illustration of waffles.

In the change-over, both Fisher products have been similarly packaged in 2-lb. cartons with brightly lithographed, four-color overwraps bearing mouth-watering, life-sized reproductions of the prepared product, ready to eat.

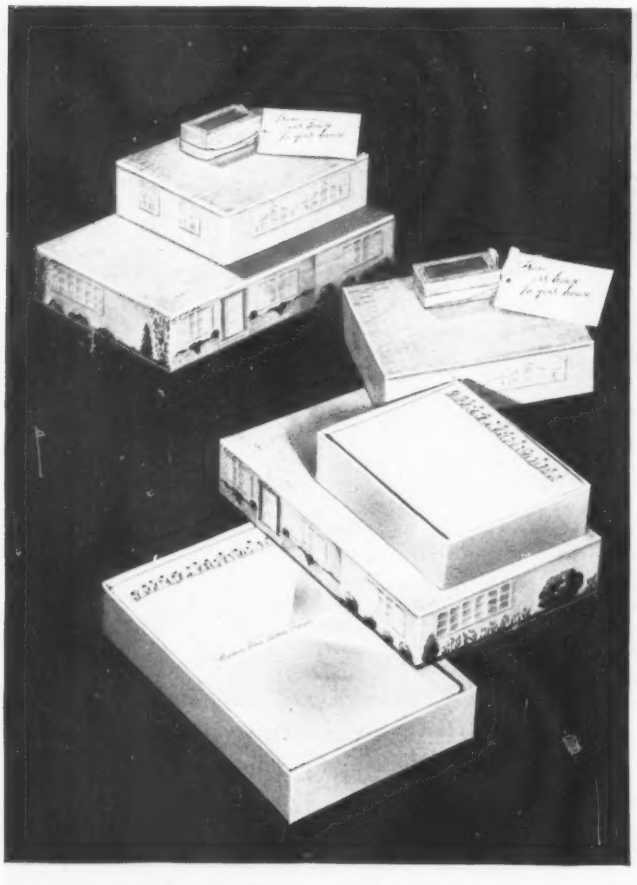
Dominating the front panel of the pancake-mix package is the full-color illustration of golden brown, piping hot pancakes splashed with syrup, while an equally vivid picture of a waffle takes up more than half of the back panel. The old identification "pancake and waffle mix" has been shortened to just "pancake mix" for more effective presentation.

The front of the cake-flour package presents a succulent slice of white layer cake with chocolate icing, on a plate ready to serve.

Aside from their pictorial elements, the wraps make other effective use of color. The cake-flour package used a backdrop of deep ma- (*Continued on page 202*)

EATON'S EYE CATCHERS

Two packaging ideas aimed for success on counters displaying boxed stationery



MINIATURE HOUSE is made by pasting together two regular boxes of stationery with special box covering, one on top of the other, off center. The chimney is made of a wooden block covered with paper to simulate brick.

FOUR-POINTED BOX permits unusual arrangement of papers for display purposes. Box is pastel-foil covered, silk screened in white and is supplied to retailer either with or without bow.

For gift promotion, boxed stationery constantly requires new packaging ideas.

Two unusual items seen in the fall collections are Eaton's "House Full of Cheer" and "Snow Crystal."

"House Full of Cheer" is designed primarily as a suggestion for a hostess gift—a house warming—a gift to a "house" rather than to an individual. The packaging shows one way to dress up stock merchandise.

By taking two regular-sized boxes of Eaton paper—one for notes and one for letter paper—designing them with special cover paper, placing one on top of the other, off center, they can be made to look like a miniature, modern-style, California-type house. The covers of both boxes lift off, disclose the note paper and the letter paper, both printed with tulip border to match the "exterior planting" on the "house" boxes. The chimney is a wooden block covered with printed paper wrap. A gift card, to which the donor may add his name, is tied to the chimney with a satin ribbon. Product identification appears on the paper band around the stationery and on the reverse side of the gift card. Eaton makes both box and wrap.

The "Snow Crystal" package not only presents an eye-appealing four-pointed box, but an interesting arrangement of paper for display when the box is open. Four different colors of note paper and matching envelopes are packed on end in this deep, four-pointed box, covered in muted pastel aluminum foil. The magnified crystal design and flakes on the side are silk screened in white. Retailers may order the box with or without the generous red satin bow.

CREDITS: *Snow Crystal box and wrap, Heminway Corp., Waterbury, Conn.*

WEST COAST REPORT

Attendance of 6,700 at first Western Packaging Exposition and Conference insures renewal next year in San Francisco

With 114 exhibitors and 6,700 visitors, the first Western Packaging Exposition and Conference was generally accounted a highly successful event. The show and conference were held Aug. 10 to 13 in San Francisco's Civic Auditorium. Expectations that it would become an annual event, supplementing the national show which is staged each spring in an Eastern city, were realized with the official announcement that the second Exposition and Conference will be held next year, Aug. 9 to 12, at the same place and under the same sponsorship.

Visitors and exhibitors alike agreed that the Exposition and Conference appeared to fill the need of bringing together the suppliers and users of packaging materials in the great West Coast market, most of whom are barred by distance from participating in the Eastern event.

San Francisco unfolded its traditional hospitality for the visitors. Mayor Elmer E. Robinson was on hand to make a welcoming address at the opening Conference session, stating that he was impressed with the scope of the Exposition and conference. "Here is evidence," he said, "that the American business man is open minded and ready to invest in improvement."

The Conference was called to order on Tuesday afternoon by Dr. William Rabak of the Western Regional Laboratory of the Department of Agriculture, Albany, Calif., who was general chairman of the Conference.

H. C. Diehl, director and secretary of The Refrigeration Research Foundation, Berkeley, Calif., who was chairman of the Tuesday session, introduced Mayor Robinson and, in his own address, set the keynote for the entire program.

"Mechanical developments in handling, transporting and warehousing merchandise," Mr. Diehl said, "parallel the astonishing advances in other phases of distribution. Packaging, in the broadest sense, touches and influences every one of these developments because the merchandise or product must be packaged to be distributed and sold. The major problem is the integration of all these individual advances in the several fields touched by packaging with packaging progress itself. With full realization that the inter-industry coordination, which seems clearly indicated by these increasing complexities, is not easy to obtain, I recommend to your thinking some study of the manner in which each of the production or service industries touched by packaging and related developments can bring their plans and developments to the attention of the others concerned," Mr. Diehl told the conference members.

Something of the growth and importance of the West in packaging and industry generally was outlined in an address by J. Lester Perry, president of the Columbia Steel Co., San Francisco.

"During the hectic years which followed Pearl Harbor," he said, "the normal growth of a decade was crammed into each single year. Thus in a mere span of five years the economic life of the West has been projected ahead some 50 years.

"Let us look for a moment at the State of California. The value of products manufacturered here in 1947 is estimated at approximately 10 billion dollars, in comparison with $7\frac{1}{2}$ billion dollars in 1946 and just short of 3 billion dollars in the prewar year of 1939. Manufacturing employment increased during this period more than in any other industrially important state in the Union, an increase of 87% for California against a national average of 49%.

"The industry with which I'm associated—steel—has increased Western production at a far greater rate than has taken place in any other region of the United States. Before the war, Western steel mills produced 900,000 net tons of finished steel annually in comparison with 2,700,000 net tons of finished steel today. These figures illustrate that the West is holding its gains and will continue to do so. We believe this to be an established fact.

"Woven all through this growth and accomplishment is the story of the packaging industry which has done much to sell the West to the rest of this country and the world. Packages and containers of all descriptions holding Western-produced commodities have for years carried labels depicting the natural beauties of this area. They have done more than tourists' postcards to catch the imagination of millions of householders located in less favorable areas.

"The inventions and ingenious developments that have taken place in the packaging industry over the past 25 or more years have been miraculous and have kept pace, if not outdistanced, the efficiency and progress that has been made in other industries.

"It is only necessary to glance at your exhibits on display here today to realize the vast number of jobs that have been created by the ingenuity and perseverance of your designers. The manufacture of these machines is responsible for the creation of countless thousands of jobs.

"The tremendous demand for steel here continues and there is no clear indication as to when it will slacken. During these days we are often approached by people who want to move a branch of their business into the West or who want to start a new business here. We are making every effort to meet these added demands for steel, for we are aware of the importance of continued industrial growth and expansion.

"This continued interest in new Western markets is of vast importance to all of us and particularly to those of us who are engaged in packaging. For we steel manufacturers consider ourselves part of the packaging industry. You are all familiar with the fact that the steel industry produces yearly millions of tons of tinplate which is made into tin cans and which places our industry in the packaging business in a big way.

"For example, right here in nearby Pittsburg, Calif., we are beginning to turn over a new multi-million dollar cold-reduction steel sheet and tinplate mill, one of the most modern in the nation. A great quantity of this mill's production will be devoted to tinplate to meet the tremendous requirements of the Western canning industry. Many other of our products

of steel, such as nails, wire and sheets, are important elements of packaging."

The first Western Packaging Exposition and Conference was sponsored and staged by Clapp & Poliak, Inc., the New York exposition management firm which has for years handled the American Management Assn.'s national shows. They were assisted by a volunteer advisory council formed of West Coast packaging leaders, headed by Kenneth K. Dean, publisher of *Good Packaging*, as general chairman.

The advisory board included: Leo Blank, sales manager, Western Division, Stecher-Traung Lithograph Corp., San Francisco; Peter D. Bowley, Peter D. Bowley & Associates, San Francisco; H. D. Chickering, assistant manager, Pacific Coast district office, Rayon Department, Cellophane Division, E. I. du Pont de Nemours & Co., Inc., San Francisco; R. J. Christ, vice president and general manager, The Dobeckmun Co., Oakland, Calif.; J. M. Cowan, manager for market development, The Dobeckmun Co., Cleveland, Ohio; William DeBack, vice president and manager, Anderson-Barngrover Division, Food Machinery Corp., San Jose, Calif.; William K. A. Ferguson, division sales manager, Reynolds Metals Co., San Francisco; M. Gaukerud, sales research department, Container Corp. of America, Chicago; H. L. Greene, vice president, J. L. Ferguson Co., Joliet, Ill.; Robert D. Handley, advertising manager, Sylvania Division, American Viscose Corp., New York; E. J. Heimer, president, Barrett-Cravens Co., Chicago, and Heimer Equipment Co., Oakland, Calif.; D. S. Hopping, director of sales development, Celanese Plastics Corp., New York; William H. Jaenicke, president, Mailer Searles, Inc., San Francisco; M. P. Junkin, sales manager, National Metal Edge Box Co., Philadelphia; G. A. Mohlman, president, Package Machinery Co., Springfield, Mass.; P. O. Shuttleworth, assistant manager, General Merchandise Department, Zellerbach Paper Co., San Francisco; Paul Thompson, advertising and sales promotion manager, Sherman Paper Products Corp., Newton Upper Falls, Mass.; S. F. Thune, manager, Pacific Coast Division, National Starch Products, Inc., San Francisco; Spencer Tilden, vice president and Western manager, Arabol Mfg. Co., San Francisco; R. H. Van Saun, packaging engineer, Container Corp. of America, Oakland, Calif.; Mills W. Waggoner, general sales manager, Better Packages, Inc., Shelton, Conn.; Jack F. Wear, Food Industries Engineering Equipment Co., Portland, Ore.

Members of the Conference Council, under Dr. Rabak, were: Charles T. Beringer, president, Los Hermanos Vineyards, St. Helena, Calif.; E. M. Burns, secretary-treasurer, Northwest Frozen Food Assn., Portland, Ore.; Earl E. Carlsen, director of research, Washington State Apple Commission, Yakima, Wash.; R. L. Cheney, Glass Container Mfrs. Institute, Inc., San Francisco; M. A. Clevenger, executive vice president, The Canners League, San Francisco; H. C. Diehl, director and secretary, The Refrigeration Research Foundation, Berkeley, Calif.; Irving Lyons, traffic manager, California Packing Corp., San Francisco; Paul J. Messer, executive secretary, Pacific States Butter, Egg, Cheese and Poultry Assn., Los Angeles; C. B. Moore, director, Western Growers Assn., Los Angeles; Dr. E. M. Mrak, chairman, Division of Food Technology, College of Agriculture, University of California, Berkeley, Calif.; William J. Tanzey, vice president and director of sales, The Borden Co., San Francisco; Dr. Paul C. Wilbur, director of research, Food Machinery Corp., San Jose, Calif.; L. B. Williams director, California Dried Fruit Research Institute, San Francisco.

Following is a summary of the 12 papers read at the four sessions which comprised the Conference proper:

WEDNESDAY MORNING

Chairman, E. M. BURNS, *vice president, Terminal Ice and Cold Storage Co., Portland, Ore.*

What Is Good Package Design?—LEONARD ARTHUR WHEELER, *package and product engineer, Los Angeles.* A good package is one which sells itself! Primarily it will be attractive to the consumer. It may catch her eye first by means of attention-compelling color, by a striking illustration, by the visual impact of the trademark or brand name, or by some happy combination of several of these elements.

The good package forces action by inducing her to purchase the product.

Perhaps she is attracted by the shape or style of the container. Perhaps the customer will be attracted toward the package by its promise of after use or by some novel method of packing. Sometimes transparency does it, sometimes the handy size or convenient feel of the package. Standard size is a factor. Consumers will generally pick the 1-lb. unit, for instance, in preference to the 15-oz. container with a two- or three-cent price advantage. Color may be the stopping feature.

A good package will also quickly tell the prospect what the product is and what it does. If you think that that is an obvious assertion, I recommend that you make another tour of a few nearby stores of any kind—grocery, drug, stationery or hardware—and note how many containers seem to go out of their way to make it difficult for the customer to discover what the products are or their uses.

If there are special features attaching to the product, they should receive maximum display, the location of which will have to depend upon the style, size and shape of the container. Directions, recipes, other uses or additional products made by the same company might be included. Such copy should be as complete as possible, but at the same time as concise as possible.

Such things as color preferences, style preferences and other similar data are important only relatively. Taken by themselves they are not usually statistically reliable. Your average consumer's favorite color, for instance, is controlled to a large extent by what she is interested in—clothes, decorating, cooking, professional interests, sports. Her age, social position and income also exert an influence. Obviously the hues she prefers in her activities and surroundings will be quite out of place on a package of cereal or soap flakes, epsom salts or motor oil. She is attracted by beauty, of course, but beauty out of place will probably repel her.

Every packaging problem raises a new set of questions to be answered, physical characteristics to be built in, copy and sales appeals to be prepared. Drug and ethical products require quite different treatment from that used for cosmetics and toiletries and, together, they are in a class distinct from foods, hardware, liquor or auto accessories. Nevertheless there is a right combination of the many qualities and functions for every specific need.

A good package today without advertising support will, in the long run, be more productive of sales than a poor package with advertising, all other things being equal. Impulse sales alone will create a fair share of business even without promotion to give the consumer a shove.

The Consumer Looks at the Package—DR. VERA GREAVES MRAK, *extension specialist in nutrition, Agricultural Extension Service, College of Agriculture, University of California, Berkeley, Calif.* Packaging products takes away from the consumer the

ability to examine the product and someone must assume that responsibility. Therefore, the label or package should contain an exact description of the product in language understood by the consumer and in a size of type she can read without glasses. She would like the label to be brief and to the point.

With many food products some type of dating, such as "use up before such and such a date," would prevent a lot of disappointment. A good example would be frozen shrimp; in fact, most frozen products.

Four other main points are important to the consumer in regard to packaging: (1) The package should be of a type of material best suited to retain the quality of the product until use to prevent deterioration, contamination or soiling. (2) A convenient package is always appreciated. Packages that are hard to stack or store should be avoided. Packages in which the product can be stored until it is used up is a convenience factor of importance. Directions for opening packages such as glass jars with a clamp-type lid or metal containers not opened by the usual method should always be included on the lid. Convenient spouts or methods of removing liquid or granulated products should be described. Lids should fit on and off easily on products such as cereals. With some cereal packages it is necessary to rip off the whole top and leave the product exposed. (3) The package that tells how to use a new product often means the difference between making a purchase or leaving it on the shelf. (4) All of the above things being equal and sometimes even when they are not, it is the attractive package that catches the consumer's eye. Packages that can be used in the home after the product has been removed are sometimes the telling factor in deciding between different brands.

Can a Package Be a Salesman?—ARTHUR C. FARLOW, *vice president and Pacific Coast manager, J. Walter Thompson Co., San Francisco.* Those of us who are engaged in the day-to-day job of producing advertising for a great variety of products and services and also of planning of merchandising for many of these products are highly conscious of the part the package or the product itself can play in both the original sale and the repeat sale.

A very large part of the purchases made by men and women are made without any direct selling effort on the part of the clerk or salesman. The selection of the brand or the initiative to try a product may come from a cumulative effect of continued advertising. But just as the principles of mass selling deny the opportunity for direct selling of small-unit merchandise because of the extremely high cost of personal selling, so must the package and the product participate in the effort to obtain repeat sales.

Several essential selling principles can be and are applied to the package. These principles are: (1) The identification of the character or personality of the product with that of the package itself. (2) The use of basic selling themes drawn from the advertising campaign and applied to the package. (3) The effectiveness of the size of unit and the convenience of the package itself as salesmanship for repeat business. (4) The service to the customer through adequate information about the product and education to its use or uses.

A package, like the human salesman, sells best when it gives out with the reality of what's inside. We would certainly not expect many doctors to prescribe an ethical drug product if it came to market packaged in the gay and often flamboyant wrappings of a typical nickel candy bar. Neither would we expect a modern kitchen appliance—a new type egg beater—to be dressed in the somber style of an old-time reliable such as the Arm & Hammer Baking Soda package. The nature of the product is of prime importance in determining the character of the package. The character of the package then determines the character of the salesmanship.

This matter of personality likewise has an important influence on the kind of words used. The two sorts of products just mentioned require vastly different words to sell them. Surely, selling an ethical drug would not be in the characteristically extrovert style of a snappy salesman. And yet a light and enthusiastic kind of sales talk would be ideally suited to the new egg beater.

Thus, not only what is said but how it is said on the package has an element of great importance and must be maintained within the personality of the product. This personality of the package and its salesman in the printed word upon it must stand a very rigid test. No matter how somber or how gay, it should always be sincere. This sincerity must be expressed not only in the words of the selling messages printed upon it, but must apply to the package itself. It should be genuine and never phony.

For example, don't fake quantity by making the package larger than necessary to contain more than it does. You can succeed frequently in giving the package a larger appearance visually, but it is a serious breach of customer confidence to do so physically. I believe that making the package look too large may sometimes defeat its own purpose, especially when the product is available in packages of various sizes. How many times have we ourselves been faced with a choice of a small, medium or large package and have the sales clerk point out the economy features of the jumbo size—with our reaction that we would never use that much of the product and select the medium or small size?

It has been clearly established in a study made by our company as applied at least to one product that the large size created a much larger consumption of the product. Here are the facts: When the large package is purchased, 1 oz. of the product lasts $1^1/_4$ months; when the medium-sized package is purchased, 1 oz. of the product lasts $4^1/_{10}$ months; when the small package is purchased, 1 oz. of the package lasts $9^1/_2$ months. Thus, it is to the advantage of that advertising to sell the large package, but never to oversell the large size by faking the appearance of the contents.

The package, like the human salesman, cannot go to work until it has won for itself a chance to make a sales talk. Thus, in dealing with a widespread packaging problem, that of products sold through self-service stores, we are faced with the necessity of having the package reach out and flash an impression. Obviously, as a salesman, the package should first invite the customer's eye when seen 7-ft. ahead and, secondly, be easily readable when held at arm's length.

Basic themes in advertising live a long time these days. Consider "Vitalis—and the sixty-second workout"; "cleans your breath as it cleans your teeth"—Colgate's toothpaste; "look to Libby for perfection"; "Ipana for the smile of beauty"; "Nine out of 10 screen stars use Lux"—to name but just a few.

There is an infinity of examples of the successful incorporation of basic advertising themes to packages. These range all the way from the simple repetition of such phrases as I have mentioned to illustrations showing a characteristic use of the product as it appears in advertising. If you need any further justification for considering this as a sound element in package planning, consider the fact that if your advertising has stimulated an interest on the part of new customers to try it, does it not follow that the clincher may very well be the

repetition of the words or the idea that stimulated the trial? How important this can be may be visualized when talking in terms of bringing about a shift in brand. How many times have we had a personal experience, let's say with cigarettes, in this regard? Most of them are asked for by their particular brand name.

Time and again I have found that I was willing to change brands, but the strong habit of asking for the brand I customarily use made me name it. In applying this to self-service, the salesman in this case is the package and not the echo of the words used.

The final analysis gets down to this: if after careful planning and consideration, your agency, your advertising department and your management agree on the single strongest selling thought for your product advertising, why is not that likewise the single strongest selling thought for your package salesmanship?

There is a significant difference, among many things, of course, between the human salesman and the package acting as a salesman. The human salesman concludes his sale and then the salesman and the customer go their separate ways, but not so with the package salesman. The package salesman stays right with the customer. It has to face the continuing test of every-day use and has to face the continuing test of whether what is said on the package is borne out by satisfaction in every-day use. Right here is where some packages fail to keep doing their selling job well. While often good salesmen at the point of purchase, these packages in use do not justify their promise of satisfaction.

A recent survey by *Sales Management* magazine reports that women are greatly influenced in their preferences and dislikes about packages. The survey concludes that manufacturers generally seem to underestimate the intensity of women's unfavorable reactions to packages that cause cut fingers, lost tempers, extra work when cleaning up, extra handling through change of container or waste in measuring or handling. The average housewife loathes to clean up spilled grains of coffee, sugar, rice or any other product that comes in fine particles. In the face of today's high food prices, women particularly are more conscious than ever of the economy angle.

Individual manufacturers who have not polled housewives in spot or continuing studies of their attitudes toward packages now being used, should do so and should key their inquiries to the point of view of the homemaker. Here is salesmanship of the most important kind because it is salesmanship on the part of the package that will either win or lose repeat customers. The first sale has already been made. Will the package itself in its service to the housewife give repeat business?

Not only in the physical qualities of the package is this important element of salesmanship found, but where directions for opening or re-use of the container or where basic recipes are used or any other printed matter that relates to the container as a container, it is of utmost importance that these be abundantly clear. They should not only be crystal clear, but inviting.

Such basic things as—how much does this container hold; how many servings will it make; what is the dosage; what are the measures—we will assume are an important part of the package, if for no other reason, than that they are there by legislation. But the manner in which the information is offered can frequently be salesmanship of the highest order. It can inform to the point of creating entirely new uses for the product, thus increasing the product's service to the customer and obviously greatly increasing the rate of consumption.

An interesting example of this comes from a survey made for one of our clients on the principal uses of a multiple-use product. This survey covered four brands and disclosed that Product A was bought primarily for muscular aches, although used for five other purposes, the second most important of which was colds. Product B was bought primarily for colds and used in several other manners, very unimportantly for muscular aches. Product C and Product D followed similar but not identical patterns.

The rate of consumption for each of the uses was then studied and the three most important uses in terms of volume were then concentrated on the package. The net result was a notable increase in sales volume. Competitive products continued to list all possible uses with emphasis on none. This accenting of major uses is selling of the soundest kind because it concentrates on the volume uses.

Directions or instructions for use can be simple and yet contain important selling messages. Complicated or very cold factual presentation of the directions or instructions for use of a product, in the hands of an expert writer, can frequently be turned from a liability to an asset. Too often either the legal department or the production department rather than those responsible for selling themes prepare the instructions. Granted that they may be necessary from either a legal or a technical point of view, but don't overlook the values than can be added with a few picture words or the clever introduction of the basic selling theme.

WEDNESDAY AFTERNOON

Chairman: DR. E. M. MRAK, *chairman, Division of Food Technology, College of Agriculture, University of California, Berkeley, Calif.*

Significant New Packaging Materials—ROBERT DE S. COUCH, *head of packaging research, General Foods Corp., Central Laboratories, Hoboken, N. J.* In the glass container industry, recent developments have been channeled toward bottles that are convenient for the customer to handle, space savers on the shelf and in the home, lighter in weight and stronger. The development of lighter and stronger bottles is a matter of increasing importance in these days of rising freight rates.

An interesting recent development in metal containers is a low-pressure aerosol bomb (35 lbs. per sq. in.) which consists of a metal can plus an attached valve. Most of the aerosol bombs have been made from drawn cylinders and are of the high-pressure variety.

Modified vinyl film called Visten or Oleo film is a good example of the limited application a new material can receive although it has been used on a large scale for over a year to form the bag for the Peters Oleomargarine package. The film has some interesting properties and has been tested experimentally for packaging liver sausage, meat loaves, cured cheddar cheese and pickles in brine. Until recently, the manufacturers have been able to supply only the demand for the margarine bag.

Polyethylene, also known as Visqueen, Polythene or Reynolon 1000, is another relatively new material in the packaging field. True, it was first commercially produced in this country in 1943 and was used for packaging small arms during the war, but only within the last year or year and a half has it been applied to the packaging of a wide variety of products.

At present, films are being produced by extrusion and cast-

ing. The former accounts for the largest volume of production and it is slightly cheaper than the cast film. Polyethylene has a low specific gravity of 0.92, which means the yield in sq. in. per lb. is high. This fact, plus the price for the extruded film, has brought this material within the price range of expensive grades of cellophane.

Another new material which available information indicates will have many of the characteristics of polyethylene are films made from the styrene—isobutylene co-polymers called S-Polymers 50 and 60. Light-weight films made from these synthetic resins are still in the experimental stage. The films produced so far have had a low softening point and may require some modification to eliminate the possibility of blocking. The transmission rates for moisture, oxygen, carbon dioxide and nitrogen are apparently similar to the rates for polyethylene. S-Polymer films are stable in sunlight and are inert to weak acids and weak and strong alkalies. They can be sealed with heat.

Polyvinylidene chloride, known as Saran 517, is a modification of the wartime Saran Film Type M which was not suitable for food packaging. The 517 film has been used or suggested for packaging frozen foods, natural cheese, butter, dehydrated products, fresh fruits, vegetables, meat, metal parts, petroleum products and others. The possible uses have not been fully explored and it will be interesting to watch its growth.

Cry-O-Vac is a modified vinylidene film and so far has been presented only as a material for packaging frozen poultry. Its low moisture-transmission rate, toughness, flexibility and the ability to shrink around the fowl account for some of the reasons for using it as a packaging material for frozen poultry.

Pliofilm has been on the market for quite a few years, but a new variety was introduced several years ago called FF quality Pliofilm. This material differs from the prewar grades in water-vapor and gas transmission rates as well as in flexibility. The material is finding its greatest outlets in the packaging of fresh produce.

Laminated films often involve the use of foil and paper or foil and a plastic. Typical of these laminations are the three-ply films having cellophane or glassine on one exterior surface, aluminum foil in the center and a wax-mounted tissue on the other exterior surface. This type of film, especially when cellophane is used, presents a good opportunity to achieve an attractive printed surface by reverse printing the cellophane and placing it over the aluminum foil.

One of the newer developments in the coated-paper field is a lacquer-coated glassine incorporating a mold-resisting agent. When this so-called Anti-Mycotic paper is used to wrap bread, it lengthens the shelf life before mold growth appears and it is supposed to help retain the original fresh flavor of the bread. This coated paper also has low transmission rates for moisture, gases and organic vapors. The unique ability of this material to retard mold makes it a likely candidate for the packaging of many food products subject to spoilage by mold.

Functional Values of Unit Packages—Dr. T. A. Schwarz, *chief chemist, California Prune & Apricot Growers Assn., San Jose, Calif.* Consumer package must fulfill three basic functions: (1) it must contain the product; (2) it must protect the product; (3) it must sell the product.

It is amazing how little we know sometimes of our own product when we are asked to put down in black and white what properties of the product should be protected by packaging and to what extent.

The package is a miniature storage room. You can make the walls of this room as protective as possible, but you cannot thereby influence or control the internal room conditions except in a very crude way by leaving the door ajar.

If worded in this manner, the statement sounds almost ludicrous, yet I can cite you instances where obviously qualified men have overlooked such elementary facts.

The protective value of the package has validity only if it is expressed in terms of the product involved. The only universally applicable criterion which we have is the change in the moisture content of the product which results from moisture-vapor transmission. There is much justification in picking on moisture content in all cases where moisture content variations affect significantly texture or flavor. Processed cereal products, potato chips, etc., are typical of this class.

In such cases it is not too difficult to establish the limits of acceptability by organoleptic test and if this limit is expressed in terms of limiting moisture content you have what is so aptly called the index of failure.

Unfortunately, however, there are a large number of commodities where the case is not so simple. Take, for example, processed dried fruits. They can lose a considerable portion of their free moisture and still be acceptable. The index of failure is a very diffuse region and can be defined only by arbitrary decision and nobody wants to make that decision, except perhaps the Bureau of Weights and Measures.

You are undoubtedly all familiar with MVTR values of packaging materials. The way I prefer to look at this test is that in the TAPPI method you are testing a perfect package under *extreme* conditions, because the vapor pressure difference existing between the outside and the inside of this perfect package is 44 mm., which must be termed extreme when you consider that the usual commercial storage practice involves a vapor-pressure difference of around 4 mm.

We should be as familiar with the meaning of VPD as we are with % RH and degrees of temperature because it expresses both these terms in one unique term. It does not take too much imagination to realize that the vapor-pressure difference enables us to establish a connection between practical package testing on our own products and package material information of more academic importance, such as the MVTR as well as the ASTM method of package testing. By using the VPD judiciously, we can establish a bridge over the chasm that separates practical package testing from, let us say, laboratory-type testing.

In the prewar years our company, along with the other factors in the industry, produced a visible pack, although we did not call it by that name but rather referred to it as a brick or tile pack. The production department shed no tears when this pack was discontinued for lack of cellophane.

The reason for the lack of remorse was that this pack was primarily a hand operation. A one-case-per-minute line required a small army of women and our time studies showed that the man-hour requirements were six times as high on the brick pack than on a straight carton line.

When transparent materials became available again, we shuddered at the thought of having to resume that type of operation. We looked for alternatives and decided to try out two possibilities: a bag pack and a so-called tray pack with a visible overwrap.

This brought us face to face with the problem of equipment. Judging by the number of items in the grocery stores, either of bag packs or tray packs, you would think that packaging machinery and equipment would be readily available.

Nothing could be further from the truth, we soon found

out. As you enter the field, you are confronted with beautiful performance claims and you find yourself continuously trying to catch up with this type of "prenatal" advertising. That goes for both materials and machinery. In other words, you start practically from scratch and learn as you go along. Because everybody else uses makeshift set-ups, you develop your own Rube Goldbergs.

Like many others, we started down the pioneer trail and we took some wrong turns. When you design a packaging line which starts with a hand operation, like bag opening (which to my knowledge cannot as yet be done automatically), you are apt to lose the most important element of a modern production line: the pacing of the operators. In my opinion, the importance of pacing in modern packaging lines cannot be overemphasized. Bag lines will begin to hum if somebody gives us a bag opener that sets the pace of the line.

Before the last war heat-sealing operations were confined to moistureproof-cellophane sealing and some experimental sealing of thermoplastic films. Hand sealers, jaw sealers and a few models of rotary sealers were the only tools available for the purpose. Some improvements have been made principally by users like ourselves, but the package machinery manufacturers have not undertaken the development work on a scale commensurate with the problem on hand. Just to mention one common weakness of most sealers, there is the matter of temperature control, which is particularly important on thermoplastic films with a very narrow softening range. As a rule, the temperature lag is so great that satisfactory seals are difficult to make. I have often wondered why somebody has not developed heaters in which the heating medium is a fluid circulated by a pump and heated externally. The heating problem has been solved in the chemical industry. Why can it not be solved in the packaging industry?

Pre-Packaging From the Grower's and Shipper's Viewpoint—E. M. SEIFERT, JR., *partner, Holme & Seifert, Salinas, Calif.* Most grower-shippers do not want to change from bulk packaging to pre-packaging and the reason is because in bulk packaging a wide range of quality is commercially permissible, whereas thinking shippers know that a change-over to consumer pre-packaging would mean the necessity of delivering to the consumer at least 95% of the packaged products in garden- or orchard-fresh condition.

When any one of the fruits or vegetables is in scarce supply, shippers can then pack and sell inferior grade and poor condition at profitable prices. Such a condition offsets or makes up for the heavy losses that are many times sustained when grower-shippers have really fine quality and excessive yields. In many such instances sales prices do not net even the cost of packing, with no return for production costs. It is obvious therefore that if grower-shippers were all pre-packaging and suddenly found a condition such as was experienced this spring in Salinas where there was no good quality lettuce, they would then have no outlet for their product. This frightens them and compels them to oppose pre-packaging at shipping point.

The 1948 spring lettuce deal in the Salinas-Watsonville district will go down in history as one of the greatest disasters in that area. With 9,000 acres more than we had planted in 1947 for the same period, we shipped 4,500 fewer cars. Some grower-shippers plowed up 400 acres, some 500, some 600, because the condition of the lettuce did not permit shipping in spite of the relatively high market for what was only fair quality. The cause of this was weather adverse to growing lettuce.

Many grower-shippers who took such heavy losses were later able to recoup their losses in part by packing and selling poor to fair quality at high prices. This would have been impossible had they been pre-packaging exclusively.

This season from April to June 10, the total production costs for all the lettuce acreage harvested to that time, and which although poor, was good enough to pack, ship and sell, averaged the record high cost figure of $5 to $5.50 per crate. Our 1947 costs for the same period were approximately $2.50 per crate. Before the war our costs ranged from $1.25 to $1.50.

You can readily imagine how much heavier the loss to grower-shippers would have been had we all been pre-packaging instead of bulk packaging.

I have used lettuce only as an example. Growers of most other fresh fruits and vegetables have experienced and are experiencing similar conditions to those that obtained in this spring's lettuce deal. You can readily see now why we have grower-shipper resistance to pre-packaging at shipping point.

It may be a long time before pre-packaging at shipping point will become a reality. We certainly do not now have the know-how to pre-package in any volume for interstate shipment, especially the 10-day hauls by freight across the country. We are still very much in the experimental stage and will remain so until we have found the proper method and the right materials so that we can ship by freight in volume and deliver to the consumer garden-fresh vegetables, orchard-ripened fruit, at a cost to them which is reasonably comparable to the prices they pay for unpackaged goods.

Several years ago the Western Growers Assn., which is an association of grower-shippers of vegetables and melons in Arizona and California, established and financed a research institute and from the first, highlighted pre-packaging at shipping point. It was the pre-packaging part of the program that nearly wrecked the institute, for even though many grower-shippers could see the tremendous possibilities if we could learn how to do it, they could also see the danger of losing their bulk market.

When our research program was first started, a group of grower-shippers became so enthusiastic that together they invested and lost $200,000 in a pre-packaging plant in a very short time. Others continued and still others began to experiment with pre-packaging, but only in very small volume. Most of these soon discovered that they had to confine their efforts to local distribution, which meant from two to four days from packaging to consumer. Some of these grower-shippers are continuing experimental small lots shipped to Eastern cities, but I doubt that any car-lot shipments of fresh vegetables have been made successfully from the West to the East.

Two years ago our own firm began pre-packaging celery hearts. It took us two seasons, totalling 10 months, to be able finally to pack 400 doz. bags of hearts over one unit in 8 hrs. at a fairly reasonable cost for material and labor. If there had been a bulk-pack market for these small sizes, which were what we packed in consumer-sized bags and sold in the bay area, we could not have afforded the experiment. The cost even now is too high and we still do not have a satisfactory material for the bags. Investigation shows that our costs are now as low or lower than other celery pre-packagers, but retail sales last fall showed that while large-sized stalks, not packaged, were selling at 7¢ per lb., our packaged hearts had to bring 15¢ per lb. For the grower-shipper to pre-package profitably at shipping point, it will be necessary for him to be able to market at least 75% of his farm production.

I think every converter has tried to sell us his bags, but their efforts and our money will largely continue to be wasted until the manufacturers produce the correct material for each product. Congress, realizing the need for proper packaging materials and methods, has appropriated several millions of dollars under the Research and Marketing Act in an effort to find them, hoping thereby to reduce waste, lower the cost to the consumer and at the same time maintain or increase the farmers' income. Theoretically, it should be easy. In practice, tremendous difficulties develop. The chief of the difficulties, the greatest stumbling block to the rapid advancement of pre-packaging at shipping point, is that practically all of the fresh fruits and vegetables have such a wide range of variables as to make mechanization difficult if not impossible. Consider for a moment the variables in just one commodity—carrots. Try to visualize carrots being mechanically harvested, washed, graded and packed, remembering that they vary in size from 5 to 13 in. in length and from $^1/_2$ to $2^1/_2$ in. in diameter at the top.

Although the grower-shipper is presently opposed to pre-packaging at shipping point, he realizes its possibilities and for that reason we in the Western Growers Assn. have decided to continue our research program. Meanwhile, we will pack and ship in bulk and many of us will continue to pre-package experimentally, but we are not going to tear down our packing houses to put up pre-packaging plants.

THURSDAY MORNING

Chairman, J. W. PIPES, *president, Mission Dry Corp., Los Angeles, Calif.*

Getting the Most Out of Packaging Machines—JOHN A. WARREN, *package consultant, American Home Products Corp., New York.* At American Home Products Corp.'s plants, with the exception of seasonal food plants, we forecast our production requirements quarterly—the forecast being based on the production possibilities of our packaging equipment. Economical packaging-material procurement is tied in with quarterly packaging-machine production. Based on the markets served by the individual plants, we set up a minimum finished-goods stock at each individual plant. This finished-goods stock is determined by the known output of the packing machine. Every week we re-examine sales, regional warehouse stocks, seasonal trends and market conditions. Using our package machinery as the balance wheel of our production and warehouse inventories, we strive to keep fresh goods in distribution and make prompt deliveries. Package machinery intelligently scheduled will assist in controlling finished-goods inventories. Too often production men are prone to run packaging equipment without studying their finished-goods inventories.

It is the ultimate hope of a packaging machinery operator to obtain the optimum production from his equipment at an economical cost. The gross production of packaging equipment must balance with economical costs. Too often maximum production is obtained at a premium in direct labor costs. The inefficiencies of packaging machinery are mainly the result of excessive shut-down time. Plant managers should be thoroughly conversant at all times with the limitations of each piece of his packaging machinery and the best way to obtain this knowledge is by the use of a daily report which shows all shut-down time over one minute on each piece of packaging equipment. An analysis of the reports will disclose causes of failures and corrective measures may be adopted. The faults may lie in poor packaging material, poor product or in mechanical flaws or adjustments. In our own case, the adoption of such reports has decreased our packaging-machine shut-down time to the extent of approximately 75%.

Where filling or weighing equipment is used, the excess shut-down time may have been due to variables in the product. The reports will justify the packaging department's demand for better formulation. Major mechanical difficulties can be forestalled by immediate maintenance department repairs. Deviations from the specifications of the packaging materials may be called to the attention of the purchasing department and immediate adjustments undertaken. We have found that these reports have increased our production, resulted in the delivery of better packaging materials through mutual understandings with the suppliers and curtailed major repairs.

In cellophane wrapping equipment, one of the principal causes of shut-down time and breaking of the film is the presence of static electricity in the plastic sheeting. The static-charged sheeting curls and makes it difficult to handle. There are several effective ways of coping with this problem of static electricty.

One way is to set up electrically a counter charge in the area, thereby retarding the generation of static. This method is satisfactory for some processes, but not for those involving highly flammable materials since in its very operation another hazard—that of high voltage energy—is introduced. Other methods serve to eliminate the static charge generated. These methods employ humidity in the atmosphere, grounded metal combs or tinsel at strategic points to permit leakage of the charge to the ground so that it will not culminate in a spark.

We have found that a simple, efficient, safe and economical means of eliminating static problems on cellophane wrapping machines and machines using paper rolls is the use of Ionotron static eliminators. In our operations, using the Ionotron static eliminators, we have increased the output of the packaging machines and have eliminated the breaking of the film.

The Responsibility of the Shipper to Provide Adequate Containers—IRVING LYONS, *traffic manager, California Packing Corp., San Francisco.* (NOTE: *Speech was given by P. Steele Labagh, assistant director of traffic, California Packing Corp., in the absence of Mr. Lyons.*) In selecting a container, the shipper must comply with the rules of the classification as far as rail shipment is concerned. Whether or not the requirements specified in the classification are adequate is a matter that will have to be determined by the shipper himself. An actual shipping test or laboratory test can determine for the shipper the type of container that he should specify as adequate for his merchandise.

The shipper is not assuming his responsibility if he selects a container that is susceptible to damage with ordinary transportation handling. By this I do not mean that he must select a container that is required to stand up under all types of handling. Some of the handling by transportation companies that I have witnessed would damage any type of container; and, of course, the shipper cannot be expected to provide a container that will stand rough handling in transit.

Arrival of the product in a damaged condition or with fatigued cases results in loss of appeal to the customer and the placing of merchandise on the retailers' shelves in an unattractive condition. As a matter of fact, in a great many cases the shipper does not know the actual damage that has resulted to his brand or to his label when his product arrives

at destination in a damaged condition and/or in a worn-out container. Periodic surveys should be made to learn the facts regarding the physical condition of your product at the final outlet where the consumer makes his choice.

One of the duties of the shipper, after he has reached the point where he is satisfied that he has provided an adequate package, is to load his cars properly.

Essentials of correct carloading so far as canned foods are concerned should include: (1) the brick-wall method of loading used where practicable; (2) clean cars with protruding nails removed; (3) doorways protected by gates or wire-band strapping, preferably supplemented with fibre liners; (4) written instructions and diagrams for car loaders; (5) periodic surveys to insure execution of instructions.

An important factor for consideration in selection of adequate containers is the high prevailing tariff minimum for canned foods and still heavier loading requirements specified in O.D.T. general order 18-A. Like mothers-in-law, O.D.T. serves a useful purpose, but I'm sure we all agree that there comes a time when we would like to bid one or both farewell. As long as the O.D.T. maximum loading order is still in effect, cases that are strong enough to stand the heavier loading should be selected.

Most of the large shippers are now using pallet operations to a great extent in their warehouse operations. We can foresee the possibility of expanding these pallet operations from their warehouses to nation-wide use so that the goods may be shipped in cars and unloaded from the cars on the original pallets. This would, in our opinion, tend to reduce greatly the present loss and damage claim account which is one factor that is adding to the railroad costs. We believe it would be to the carrier's advantage to foster the shipment of palletized cargo in box cars, but the present tendency of the carriers seems to be to make the shipper, through lack of any allowance for the weight of the pallet, bear the whole burden for this improved method of shipment.

There is an apparent lack of encouragement for the use of adequate containers. A particular point I have in mind is the penalty the shipper must pay if he selects a container that is heavier than a competitor's container. Where the shipper takes the extra precaution to provide a container that he believes is of the necessary strength and weight to minimize loss and damage in transit, he should at least be rewarded to the extent that his freight charges would be computed on the same basis as those of a competitor who uses a cheaper and lighter container. I believe that this is a matter to which the transportation companies should give serious consideration.

If the shipper goes to the expense of providing a heavy container that will reduce loss and damage claims and will react not only to the benefit of the shipper but of the transportation company as well, he should be encouraged to do so, at least through the equalization of freight charges computed on weights averaged so as not to exceed those of a lighter container offered for shipment of the same products.

When the shipper provides an adequate container that will sustain ordinary transportation handling and loads the car properly, he has fulfilled his responsibility. Adequate containers are no more expensive than poor ones, especially if consideration be given to the tremendous value of good will, fewer claims and complete satisfaction of consumers.

The value of nationally advertised, attractively printed containers cannot be estimated. The retailer who receives adequately packed merchandise which arrives in perfect condition is encouraged to mass display them and the consumer is more likely to accept them.

Transportation, Freight Claims and Damage—W. W. HALE, *vice president, freight traffic, Southern Pacific Co., San Francisco.* According to a recent report of the Interstate Commerce Commission, during the year 1939 loss and damage claims for all Class I railroads amounted to approximately $21,000,000; during that year such railroads handled 333 billion, 438 million revenue ton miles of freight; in 1947 claim payments mounted to $121,651,207; revenue ton miles increased to 654 billion, 691 million. Using 1939 as base year, index for loss and damage payments in 1947 was 588, while the revenue ton miles index was 196. In other words, revenue ton miles about doubled, but loss and damage payments during 1947 were nearly six times as much as 1939. The situation on Southern Pacific has been relatively the same, our own loss and damage payments for 1947 amounting to $7,758,726.

From these alarming figures, you can readily see railroads are greatly interested in anything that can be done to minimize these losses and the place to start is in the package.

A conservative estimate would place at least half of the claim payments as being chargeable to container failures. We have many instances where packages that might be all right for one trip have been used many times. In fact, my attention has been called to shipments of beer where paperboard cartons have been used as many as 25 times. We have also had a good deal of trouble with beer due to use of wooden boxes in which bottles did not fit, but we have now about overcome this by refusing to accept beer loaded in such packages.

Another basic thing that has caused considerable trouble and expense is relaxation of packaging requirements brought about during the war, caused by inability to get sufficient material to produce packages that would conform to recognized standards. This is being slowly overcome, but I think there are still a number of improper packages being sold and, in speaking of packages, I include such articles as glass bottles and jars which, during the war, seem to have been made considerably thinner than should have been the case, on the theory some glass was thus saved. We are working on this problem by tightening up on package requirements as fast as we consistently can.

This has not been an easy matter and I am just a little bit afraid there might have grown up a temptation to use a little less material in containers, which may have been necessary during the war, but need therefor is not so apparent at this time.

It would be very helpful if shippers generally used a little more care than is sometimes taken in loading cars and gave some attention to such things as not loading freight in bags or fragile packages in cars which have not been completely cleared of former loads.

While much stress has been laid on the importance of those unloading cars making sure that blocking, nails, straps and other debris is cleaned out of the cars before turning them back to the railroads, unfortunately this is not done in many cases. This results in loss of many car days due to railroads having to move cars in many instances several miles to cleaning tracks. While we recognize our obligation to furnish cars suitable for loading, like everyone else, we suffer from labor shortages.

Another thing that is very important in connection with handling of freight is to see that packages are properly marked. Due to use of second-hand containers of various kinds, we frequently find packages with two or three different addresses on them, making it difficult to know what to do with them.

THURSDAY AFTERNOON

Chairman, G. W. ALJIAN, *director of purchasing and packaging, California & Hawaiian Sugar Refining Corp., Ltd., Crockett, Calif.*

The Outlook in Packaging Costs—HAROLD R. MORRISON, *purchasing agent, Union Oil Co. of California, San Francisco.* For the remainder of 1948 I do not look for any sharp upward spiral in the price level, but rather a gradual increase in the cost of a majority of the items which go into packaging. The close of 1948 will show a leveling off of prices, but that level generally will be higher than today's.

Steel. In spite of almost capacity production, a shortage continues and demand grows greater daily. Prices are on the way up. The abandonment of the long-established Multiple Basing Point, additional 8% wage increases, expected I.C.C. ruling favoring advancing freight rates, hike in coal prices as a result of miners' recent contract have all contributed to another nine-dollar-plus-per-ton rise in this critical item. The additional cost in steel will be quickly felt in the increased price of cans, steel pails, steel drums, machinery and necessary maintenance materials.

Light gauge sheets, which have long been in tight supply, will continue in that position for the remainder of this year. All the evidence points to a steel shortage throughout 1949 and we feel that there will still continue to be price increases unless some government action is taken.

Tin. About 48% of the world's production of tin is used in the United States. This is one of the few items still under government control. All users of tin are allocated a portion and are limited by M-81 on its use. While production for this year will probably exceed that of 1947, it will be greatly under the amount required. Statistics indicate world production of primary tin will not be in balance with world demand before 1950. The International Tin Study Group in April reported that something would have to be done to increase prices because the price now makes production unprofitable. The average price in 1926 was 0.653 cent per lb., July 1 price was $1.03 per lb. Therefore, in this commodity also we can expect higher costs.

Cotton. Government support price for this year's crop is expected to be about 31 cents. Planting was around 26½ millions. This was greater than any year since 1940. Yield may be as high as 14 million bales. The average since 1937 has been 11 million. Consumption could reach as high as 8½ million bales. Here is one commodity which seems to be in not only ample supply, but in an abundant supply. The raw-cotton market has steadily been going down. It may continue until it reaches the 31-cent support price. We should not become too excited over this lowering of the price level, for 31-cent cotton is just three times higher than the price prewar. Some decreases in cotton-bag prices should be expected. Supply is amply sufficient for any foreseeable need.

Paper and board. In this industry the supply picture grows better daily. May production was over 1,900,000 tons. This exceeded all previous monthly records. Supply has about reached demand and prices for multiwall bags, shipping cartons, paper boxes and other types of paper packages should become fairly stable. Rising labor, chemical and transportation costs, as well as the increasing costs of logs, could upset the situation.

Glass. In 1946 the production of glass containers reached an all-time high. This was caused in some measure by the extreme shortage of metal, which compelled packers to turn to glass. Since the war's close, however, this industry has not been able to retain the gains made and when metal containers again became available glass production dropped. Shipments in 1947 were off 20% and the trend continues to be downward. As long as the tight metal condition remains with us, it will have a helpful effect on glass use. Unless the government steps in and places large orders which will require metal packages and thus makes the shortage worse, it would appear that glass containers might well show some price reductions. However, like every other industry they find themselves paying more for everything they have to purchase.

These five commodities are the major items used in the industry. The same kind of a picture could be painted for the many lesser items such as ink, adhesives, closures, lumber, etc.

Packaging Specifications—T. J. NELSON, *packaging engineer, Technical Department, California & Hawaiian Sugar Refining Corp., Ltd., Crockett, Calif.* Probably with but few exceptions, the exact material used in fabricating each package or a part thereof is described in all specification programs. This includes the composition such as metal or paper, the quality and finish, the thickness and strength in terms of the supplier's tests, and such features as resistance to corrosion or to the passage of water vapor. Perhaps the glue and ink must be free of obnoxious odors or be flavored to simulate a food product odor.

Details governing size and other dimensional features will also be found in specifications. In succession, there will appear printing details as to colors and kind of inks, and identification of the printed text itself, which must correspond to the product which will be placed in the package. Some packages may have an unprinted space in which to stencil the product name after packing.

In addition to the standards of strength which apply to the materials from which the package is fabricated, performance standards are often involved.

Shipment of the completed assemblage of packaging material from the converter's plant to the buyer's plant involves some mutually acceptable form of bundling, casing or other manner of "put-up." Heretofore the only objective has been to insure that the material would be ready and fit for use when laid down in the packing room. As long as any change made by the supplier did not prevent use of the material, the buyer was not prompted to complain. Recently, however, with revolutionizing changes in materials handling methods, attention must be focused on the adaptability of "put-up" methods to palletized operations.

The tangible values of specifications include accuracy, time saving and the facilitation of obtaining material from new sources of supply. Accuracy probably typifies the popular concept of the function of specifications. If you give your supplier a concrete specification to work on, then you have eliminated guesswork on his part and confusion if he has a change in his factory supervision.

A well-drawn set of specifications will serve as an admirable basis for training junior personnel in the why's and wherefore's of packaging. Your junior personnel will learn to check his work against the specification records. This not only builds an atmosphere of accuracy, but gives the senior personnel the assurance that errors will be minimized accordingly.

Another value of specifications that can be tapped within your own company is the detection of duplication among stock items and the manifestation of needed changes to standardize

on quality throughout a line. A critical study of specifications can be explored within your own company or business, but you must go further than that. Acquaint your suppliers with these specifications and the suppliers in turn will undoubtedly be able to make suggestions to your advantage.

Business relations existing between seller and buyer will be kept on a sound basis if the seller can ship packaging materials that will not be rejected by the packing room. Mutually acceptable, typed specifications help the supplier produce material that will meet these specifications and will give the packing room a yardstick to judge before condemning.

Specifications permit comparisons in related industries. For example, the Division of Simplified Practice in the Department of Commerce has worked in such fields as standard can sizes for vegetables, standard packages for salt, standard sizes for fibre cases and even some standard sizes for wooden pallets on which these items are handled. If you have not already done so, you should inquire through the Department of Commerce for lists indicating whether your items have been covered.

Don't start with a complicated specifications system, crowded with every detail, or keep using such a system unless experience has indicated it is necessary. A simple system will give you an inexpensive adequate method and one which can be added to as experience and changes require. Assign one man to keep the specifications up to date if you can. Establish a definite understanding among all departments that any changes, however authorized, shall be brought to the attention of the man who revises the records. Those of you who are interested in purchasing as well as in package specifications may feel tempted to include prices on your specification sheets. Resist that temptation if you can, because this will double or triple the work of keeping your specification sheets up to date. The variable of price can be handled very easily by issuing a separate list every three or six months. Use standard identification and nomenclature common to the industry supplying each package. Do this even though you feel it could be improved upon. Obtain literature giving these standard terms.

Materials Handling Techniques for Cost Reduction—PAUL M. HUNT, *Packaging Research Division, Owens-Illinois Glass Co., Oakland, Calif.* Materials handling is one of the oldest common problems known to industry. Yet it had received little concerted attention until recent years. Impetus to analyzing this important phase of unit cost was forced by competition and by the shortage and high cost of manpower.

Of all the costs that go into gathering, preparing, combining, consolidating, fabricating and distributing a finished product, most are fixed. That is to say, the cost of raw materials, taxes, insurance and interest. Also, freight and general utilities such as heat, water, lights and power. For the past number of years, there has been little real control of labor rates. Raw materials include products and components which go into a final, finished product that is delivered to a consumer. About the only control of ultimate cost relative to these items an operating man has is the control of waste or spoilage. Naturally, this factor should not be overlooked.

The big cost item of a product that is wholly controllable by the production department is materials handling. This involves handling all components of a finished package from the source of supply through the plant for assembly into a finished package and onto the shipping vehicle. One can readily recognize the potential when one follows through the progress of all component parts of a finished product.

Often there are multitudinous handlings wherein an object is picked up and set down, always at a cost. We all must face the irrefutable fact that merely handling an object adds absolutely nothing to the quality, appearance or appeal of that object. It adds only to cost. Furthermore, the object is more exposed to damage or loss by rehandling. Should it be possible to eliminate one or more "handlings," the unit cost would reflect a favorable trend. One normally makes a task easier when a movement is eliminated.

The type of operation conducive to low manpower requirements, lower cost and a minimum of confusion is to handle components up to the point of usage in as large a unit as possible, such as a pallet load. As the first component starts through a line to be packed or assembled, labeled, cased and shipped, it is advantageous that it not be handled except mechanically and automatically. As each subsequent component is introduced or affixed, the assemblage should not be handled manually.

When components are assembled into a completed package, it is then wise again to handle the merchandise in large units or pallet loads. This reduces the manpower otherwise required to handle the weight in smaller units by hand. (To illustrate the efficiency of modern materials handling, Mr. Hunt presented a detailed description of the many mechanized operations in the typical modern glass container factory in contrast to the days when the sand, soda ash and lime were shoveled the hard way by hand. He showed how, contrary to natural assumption, such handling actually requires more people in the glass industry than ever before and how without such automatic operation today, the glass container would be prohibitive for competitive commercial use. He concluded his talk with a summary of the fundamentals of quality production at lowest possible cost, effected by modern methods of materials handling as follows:)

1. Purchase of raw materials from a reputable firm practicing a quality-control program meeting your specification. This reduces waste, confusion, double checking and handling materials of inferior quality.

2. Have delivery made to conform to your facilities for receiving. An inventory, for insurance of operations, should be maintained. However, so far as possible, delivery should conform to manufacturing requirements in order to minimize "double" handling.

3. Study your unloading methods. Is it a tedious or back-breaking job? Can it be done easier by use of fork trucks and pallets? Perhaps power conveyor? Maybe magnets or vacuum or air? Whole gondola cars of coal, sugar beets, sand, gravel, etc., are being dumped as a unit.

4. How do you deliver to your storage or center of usage? Isn't it possible to reduce manpower by utilizing some commercial piece of equipment? If not, can one of those firms build what you need?

5. Is storage being handled in the most economical manner? Perhaps a power belt, portable elevator or high-lift truck is just the ticket.

6. Delivery from storage or receiving to assembly or filling or packaging center must be coordinated with production requirements. Is it working smoothly? Will some of the equipment you have seen here in the past few days help?

7. Remember we want little waste. We do want as high a production speed as possible consistent with sales requirements. We want high efficiency. We do not want a crew doing nothing, on our time, because of a failure of mechanical equipment or an error in scheduling or an inefficient system of keeping them supplied.

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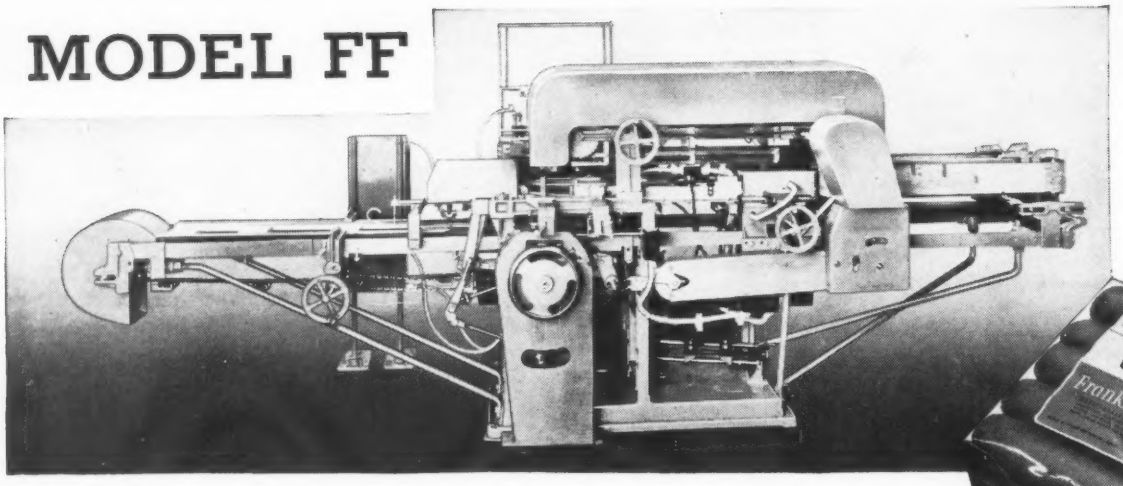
MODEL FF



Wrapping that stops the shopper —and starts the SALE!

The neat, attractive, tightly-sealed packages turned out by our Model FF inspire shopper confidence . . . stimulate sales. Frozen food men have capitalized on this fact right from the start. And more recently manufacturers of other items such as frankfurters, sausage, butter, margarine, etc. have taken advantage of this economical, sales-building wrapping.

Here are just a few of the reasons why the Model FF has become such an outstanding favorite. Its speed is adjustable—from 40 to 100 packages per minute . . . It features rust-proof parts wherever necessary . . . It is quickly adjustable for a wide range of package sizes, adjustments being made by simple handwheels . . . The elevator well slide is provided with a special oiling system through which soapy water can be forced for cleaning the slide . . . Infeed and discharge belts are supported from the base of the machine, making it easier to move the Model FF from one location to another.

Other Advantages

The Model FF automatically makes allowances for variations of up to 3/8" in the width of packages—products can be wrapped either before or after freezing. Discharge belt measures only 3' in length, making the unit surprisingly compact.

Our nearest office will be glad to supply you with additional information on the Model FF, and to demonstrate how it will wrap products in your line.

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Over a Quarter Billion Packages per day are wrapped on our Machines

PECTINATE FILMS

Fruit by-product provides edible package with good possibilities for candied fruits, meats and frozen foods.

By W. DAYTON MACLAY and HARRY S. OWENS*

Increased processing of citrus and apple products and pronounced increase in production of citrus fruits have stimulated research on new industrial uses of their processing wastes. Because of its inherent characteristics, pectin is an important by-product of the wastes of these fruits. The necessary objectives in research on pectin are lowering of costs of production and increase in its industrial applications.

In a research program based on these objectives in the Western Regional Research Laboratory, one of the applications considered has been the use of low-methoxyl pectin in the preparation of films. Considerable interest has been expressed in the use of these films as packaging agents. They are edible and may be applied by dip coating and drying to form uniform, protective and attractive films. Dip coating offers the advantage that the resulting films conform to the shape of the object to be coated, thus overcoming many disadvantages encountered in packaging irregularly shaped objects.

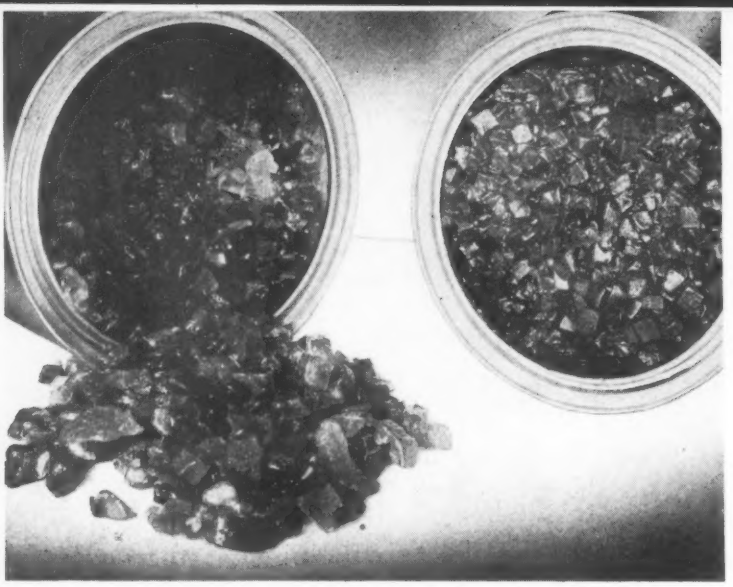
Pectinic acids are essentially long-chain polymers of galacturonic acid partially esterified with methyl alcohol. If the ester content is reduced to about 7% or less, gel structures can be formed from aqueous solutions of pectinic acids merely by the addition of polyvalent cations, such as calcium ion. On drying, the gel becomes a transparent glossy film. Pectinate films have been prepared by extrusion of the pectinate into acidified calcium chloride solutions, as well as by evaporation.

The extruded films as prepared have insufficient tear resistance to be competitive with regenerated cellulose, although their tensile strength and elasticity are comparable. If the tear resistance could be improved so that pectinate films could be handled in conventional packaging machinery, particularly meat-casing machinery, they might find a place in the meat industry as an edible film removable by boiling.

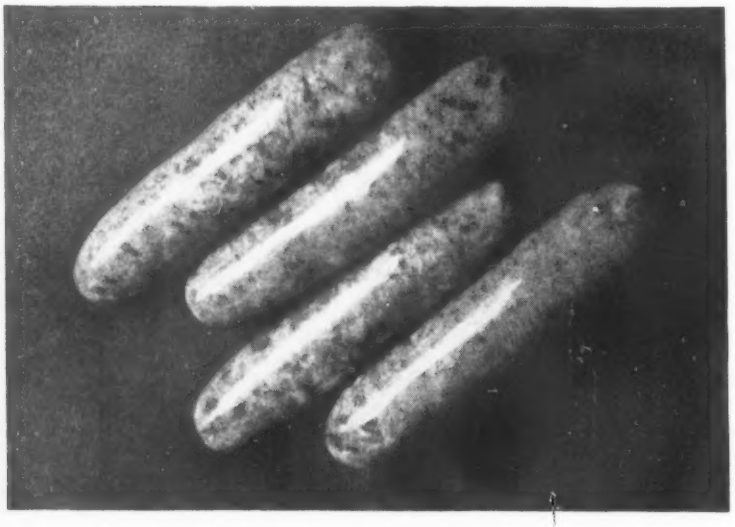
Investigations are under way on the application of pectinate films by dip or spray coating. Low-methoxyl pectin dispersion at a concentration of about 3% is pre-

MATCH TEST applied to cellulose and zinc pectinate films. The lack of flammability of the pectinate film is clearly illustrated at the left.

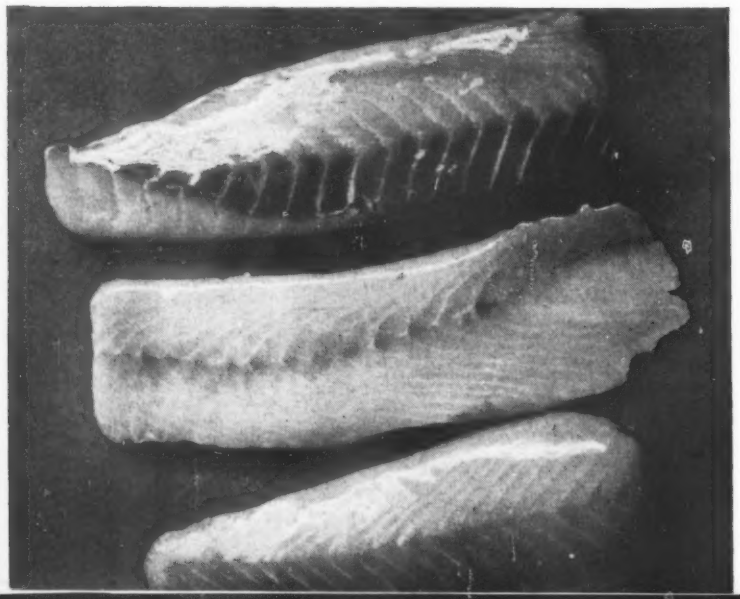
* Both of the Western Regional Research Laboratory of the Bureau of Agricultural and Industrial Chemistry, Agricultural Research Administration, U. S. Dept. of Agriculture, Albany, Calif.



CANDIED FRUIT coated with the edible pectinate film is non-sticky even at relatively high temperatures, as demonstrated by the ease with which it pours from the container shown at left as contrasted with non-coated fruit at the right.



SAUSAGES coated with pectinate film, which is not only entirely edible but also tasteless and tender. The moisture permeability rate is about the same as that of uncoated cellophane.



pared by dissolving sodium hydrogen pectinate in water. The pH can be adjusted to a value compatible with the product to be coated, but preferably in the range pH four to six. The object is dipped or sprayed, drained, then dipped into—or sprayed with—1% calcium chloride solution, drained and dried. The use of hot solutions permits a reduction in the concentration of pectinate if calcium ion is used in the first dip. A calcium-to-pectin ratio of 0.016 has been satisfactory. The second dip or spray prevents adhesion of the coated objects. Drying of the gel, if desired, is accomplished in an air blast at below 80 deg. C.

Thickness of the final film is controlled primarily by the viscosity of the pectinate solution and is subject to factors such as temperature, concentration of pectinate and of calcium in the first coating solution and time of drainage of the coated object. Utilization of these films is under investigation and possible applications may be of interest.

The film, as prepared, is nonadhesive. This property suggests its use on glacèd fruit, on soft dates and on similar products. Coated candied fruit is nearly free flowing and might be packaged mechanically. Non-volatile mold inhibitors incorporated in the film offer ample protection against micro-organisms.

The edibility and tenderness of the film have suggested its use on meat preparations. Application to raw frankfurter mix used commercially was unsatisfactory, but experiments with drier mixes might be more successful. Application to cheese and cured meats such as dried sausage and hams will depend upon the moisture-permeability requirements. At the present stage of development, pectinate films are no more effective barriers to moisture than uncoated cellulose films.

Pectinate films may find use as carriers of fungicides, anti-oxidants, vitamins and other agents. Experiments are under way in which seeds have been coated with pectinate containing various seed disinfectants or with pectinates of heavy metals to prevent attack of the seeds by micro-organisms before germination occurs. Possibly films containing fungicides would be useful for coating Italian sausage during the curing operation. Films containing vitamins could be added to rice and similar grains to fortify them.

Another slightly different application is as a gel coating in place of ice glazing on frozen foods, since pectinate gels withstand the effects of freezing and can be applied to form a fairly uniform coating. The gel supplies moisture, thus retarding loss of moisture from the product, and inclusion of an antioxidant in the gel permits it to act as an atmospheric oxygen barrier. An overwrap is suggested for complete protection.

The most promising fields of application of pectinate films appear to be in reducing stickiness of products and as carriers for fungicides, vitamins and anti-oxidants. Other uses will depend upon successful reduction of their moisture permeability and increase of strength.

FROZEN FOODS are an interesting field of use for pectinate gel coatings, which withstand freezing and supply moisture. The photograph at left illustrates fish fillets coated with the film.

PERMEABILITY OF LAMINATIONS

Reporting novel effects obtained with various laminations of polyvinyl alcohol films to other polymers and tabulated results of their water-vapor transmission rates.

By P. W. MORGAN*

The practice of laminating materials has long been known and has been carried out for various purposes. One of the best known and widely used properties of laminates is the gain in uniformity of strength and rigidity obtained by plying sheets having directional properties.

In the field of thin films there have already appeared laminates of cellophane with aluminum foil (1)† to obtain permanent moistureproofness, rigidity and tear resistance; ethylcellulose with styrene (4) to combine flexibility with insulating properties; polyvinyl alcohol with unvulcanized rubber (5) to protect the rubber from oxidation and foreign matter; rubber hydrochloride (Pliofilm) with polyvinyl alcohol (6) to combine impermeability to moisture and gases, etc.

In the present paper there is reported a novel effect on moisture permeability which results when a film of polyvinyl alcohol (PVA) or other hydrophilic polymer is laminated with a layer of moderately moisture-permeable polymer. This effect is that of greatly differing permeability in opposed directions through the laminate when the vapor-pressure difference across the films is relatively high (Table I). Whenever the PVA film is placed on the low humidity side of a barrier, it shows an apparent permeability considerably lower than the film adjacent to the moisture source. PVA on the high humidity side is no barrier to moisture vapor and diffusion is limited only by the less permeable layer.

PVA and polyethylene

A laminate consisting of half PVA and half polyethylene has a lower permeability value than a polyethylene film of equal thickness. Since the permeability of polyethylene has been shown to be inversely proportional to thickness (3, 7), it is readily apparent that at very low humidities and humidity differences the water-vapor transmission of PVA is as low as or lower than that of polyethylene. This is to be expected from its regular and non-bulky chemical structure which makes possible a close packing of the molecules into well-ordered and crystalline regions. The normally high moisture permeability observed is no doubt the result of high swelling and softening of the film before actual permeation takes place (7).

When PVA is laminated with other materials, such as vinyl chloride-diethylfumarate (95/5), butyl rubber or polychloroprene, similar results are obtained. The PVA film appears to have in each case a lower permeability than the more hydrophobic material. Exact calculations, however, are not justified because the product of permeability and thickness is not known to be constant over very wide ranges for most of these polymers.

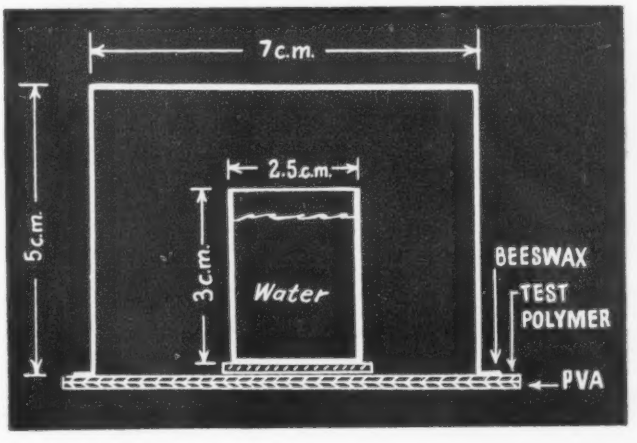
Pinholes and cracks

Permeation of moisture through film edges and coverage of gross pinholes in the films by the double casting are believed to be of slight importance in evaluating the data. Turning the PVA layer toward the permeability cup does not raise the permeability above that observed for the non-laminated hydrophobic layer of the film.

Loss of vapor through the edge would do so. Cracks, pinholes or other gross defects in film samples produce marked increases in permeability values. Multiple casting of the materials studied did not reduce the permeabilities below the values reported here for single cast films.

Laminates of the type described are useful for ob-

I. SIDE VIEW diagram of permeability cup before immersion showing arrangement of test materials used.



* Pioneering Research Section, Technical Division, Rayon Department, E. I. du Pont de Nemours & Co., Inc., Buffalo, N. Y.

† Numbers in parentheses refer to "References" appended.

taining permeability values on materials which are too tacky, limp, fragile or are otherwise deficient as self-supporting films. For this purpose the PVA layer is turned toward the source of water vapor. As wrappings, these laminates are of value for vacuum packaging or for packages in which a low humidity is maintained by a desiccant.

Experimental

Preparation of films and laminates. Films were solvent cast upon a chromium-plated surface heated to about 10 to 20 deg. C. below the boiling point of the solvent. The casting plate was surrounded by a box through which warm air could be circulated. The flow of air was started after the surface of the film was hard enough to prevent distortion.

For the preparation of laminates, the depth of the casting knife was increased and a layer of a second polymer solution spread over the first film. The solvent-free laminate was conditioned at 70 deg. F. and 60% R.H. and its permeability measured as described in the procedure below.

Measurement of moisture permeability. The cup method of Charch and Scroggie (2) was used for the measurement of moisture permeability. This consists of the following steps (see Fig. 1):

Upon a sheet of gasket rubber covered with several layers of paper, place a 4-in. square of film sample. In the center of this place a 1-in. square of chipboard and an aluminum crucible containing 12 to 15 ml. of water.

Dip the rim of an aluminum permeability cup in beeswax at 140 to 170 deg. C. and place the cup over the crucible of water so that a tight seal is made with the film sample. Hold the cup in place for one minute with a 1-lb. weight.

Invert the cup and film quickly without wetting the film and trim off the excess film.

Cool the cup to room temperature, weigh (using a counterpoise sealed with an aluminum foil) and place the assembly with other samples in the permeability cabinet. This cabinet is maintained at 39.5 deg. C. ± 0.5 deg. and substantially dry air (1% R.H.) is circulated about the cups.

Determine the loss in weight from the cups every 24 hrs. after cooling to room temperature.

Calculate the permeability of the film as follows:

$$\frac{\text{Observed loss in mg.} \times 100}{(\text{Time in hrs.}) \times (\text{Area exposed in cm.}^2)} = \text{Permeability in g./100 m.}^2\text{/hr.}$$

For the cups described and a 24-hr. test, this result is obtained by multiplying 1.25 times the weight loss in mg.

This test provides a vapor-pressure difference across the film equivalent to 53 mm. of mercury. The tests were run for 72 hrs. to obtain equilibrium conditions and the results are reported as averages of two tests on the third 24-hr. period (Table I).

References

(1) W. H. Charch and T. G. Finzel, U. S. Patent 1,983,520 (Dec. 11, 1934).
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(3) P. M. Doty, Wm. H. Aiken and H. Mark, *Ind. Eng. Chem.*, Anal. Ed. *16*, 686–690 (1944).
(4) D. L. Gibb and Wm. R. Collings, U. S. Patent 2,276,478 (March 17, 1942).
(5) L. L. Leach, U. S. Patent 2,391,986 (Jan. 1, 1946).
(6) H. J. Osterhof, U. S. Patent 2,328,844 (Sept. 7, 1943).
(7) P. E. Rouse, Jr., *J. Am. Chem. Soc. 69*, 1068–1073 (1947).

TABLE I—MOISTURE PERMEABILITY OF POLYMERS COATED ON POLYVINYL ALCOHOL

Polymer	Thickness in inches: PVA	Thickness in inches: Polymer	Side toward water	P^a	Calcd. P^b at 0.0020 in.
Polyvinyl alcohol (PVA; Elvanol 91A-65)	0.0010	.....	.....	3,200	1,600
	0.0014	.....	.....	2,800	1,960
	0.0020	.....	.....	2,600	2,600
Vinyl chloride-diethyl fumarate (95/5)	None	0.00107	.....	282	151
	None	0.0020	.....	180	180
	None[c]	0.00117	.....	282	165
	0.0013	0.00107	Polymer	95	112
	0.0015[d]	0.00115	Polymer	92	122
	0.0012	0.00103	PVA	294	151
Polyethylene	None	0.0010	.....	62	31
	None	0.00206	.....	35	36
	0.0013	0.0011	Polymer	15	18
Chlorinated polyethylene (64% Cl)	None	0.00178	.....	188	167
	0.0015	0.00191	Polymer	77	131
Chlorinated polyethylene (46.6% Cl)	None	0.00172	.....	147	126
	0.0012	0.00218	Polymer	25	42
Butyl rubber (GR-I)	None	0.00265	.....	30	40
	0.0013	0.0010	Polymer	20	23
Neoprene GN	0.0010	0.00127	PVA	875	556
	0.0009	0.00222	Polymer	253	395

[a] Grams H_2O vapor/100 m.²/hr. at 39.5 deg. C. and a vapor pressure difference of 53 mm. Hg.
[b] Calculated by inverse proportion from total film thickness except where PVA was toward water. In the latter case calculated values are for the less permeable film only.
[c] Polymer cast on PVA and stripped off.
[d] PVA cast on top of polymer. Otherwise polymers were cast on unplasticized PVA film.

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Plastic-coated paperboard

QUESTION: We have heard that there is on the market a paperboard which is plastic coated on the back by a process that is alleged to make it greaseproof and moistureproof. We understand that several types of such coatings are available and that they are based upon a vegetable product of some kind. We would like to know how this plastic coating is applied and if there are available any reports of experience in the use of this board for paper boxes.

ANSWER: There has been considerable work done and some commercial use of coatings based upon proteins from vegetables and other sources. These proteins are formulated and modified so they can be coated on paper or board, or similar bases, to produce a surface coating which is highly resistant to penetration by oils and fats. Obviously, the level of greaseproofness will depend upon the continuity of the surface film which, in turn, is dependent upon the amount of coating used, the finish of the base and the coating technique employed.

There have been attempts to make such coatings moistureproof and heat sealing, with some degree of success. It is suggested that you get in touch with the producers of such coatings and obtain more detailed information concerning your problem, together with technical data, costs, etc.

Rollers to remove air

QUESTION: We are packing candies in cellophane bags. In the larger (8 to 12 oz.) sizes we are packing in large, double "lay-down" type of bags—that is, we are making the bag twice as large as it need be if the candy were stuffed into the bag just as tightly as possible. By allowing more space, the candy can be flattened out in the bag, the bag laid down flat and stacked readily. In practice, we find that we must get the air out of the bag before heat sealing. Otherwise there is so much air locked into the bag that it will be like a balloon, won't stack properly and, in lifting up the bag, all the candy will readily slide into the bottom of the bag, making it appear about half full. We have tried various means in gadgets, but haven't found a satisfactory method. Can you give us any help or suggestions for quickly and simply removing this air?

ANSWER: The problem of removing air from cellophane and other tight bags before sealing is common to many products in various industries. One method is to use a vacuum device into which the bag is inserted at the mouth, the air extracted and the bag immediately heat sealed or closed. However, the simplest and best technique appears to be the use of very soft sponge rubber rollers, operating on a conveyor belt placed between the filling and sealing stations. The cellophane bags from the filler are laid on the conveyor belt with their long dimension parallel to the direction of the travel of the conveyor belt, with the closure toward the filling stations. The belt then carries the bag through the soft rubber rollers which slightly compress the product and completely remove the air from the unfilled portions of the bag. The result is that the bag is delivered to the heat-sealing units with the excess air removed and the top portions are laid together for the sealing operation.

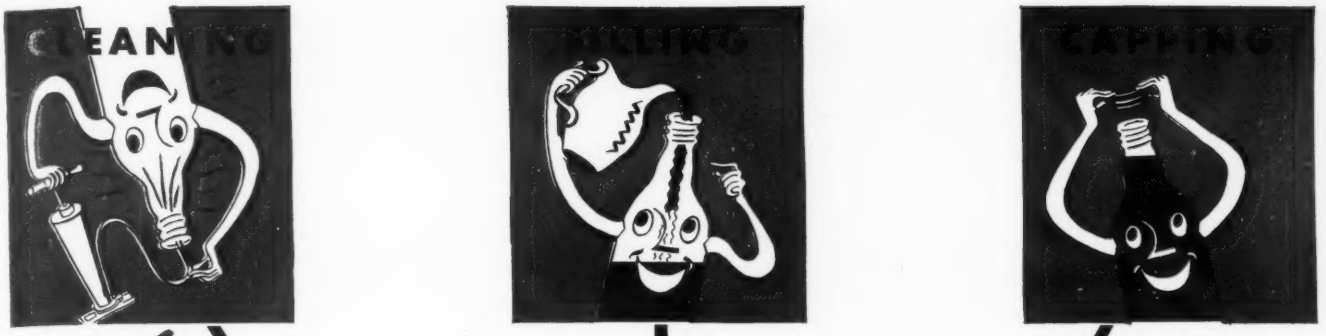
There are several companies making such units, which would appear to be the best answer to your problem.

Seals for pottery

QUESTION: We are desirous of knowing just how we can close our 1-lb., two-piece pottery crocks so that they will be airtight. Up to the present time we have been using a special weatherproof scotch tape and over it we use a plastic band, but both of these have proved useless, as we shipped out some of these crocks and they were returned to us due to leakage which occurred during transportation. We would appreciate any help or suggestions you can give us to solve this problem.

ANSWER: It is difficult to effect a liquid-tight or hermetic closure on pottery crocks and lids because of the lack of mechanical uniformity of these packages. The best method of obtaining a tight closure is by means of a thermoplastic sealing compound which can be poured into the space between the lid and jar and cooled in this position.

There are a great many possible combinations of resin or resin waxes which could be used for this purpose. It is suggested that you check with the list of suppliers in the *Modern Packaging Encyclopedia* directory under the heading "Heat-Sealing Compounds." You can obtain samples and information concerning the use of these materials for your problem and with some experimental work you can find a material and a method which will insure a tight closure. However, it may be necessary for you to provide an additional seal or protective means to prevent the lid from being displaced in shipment.



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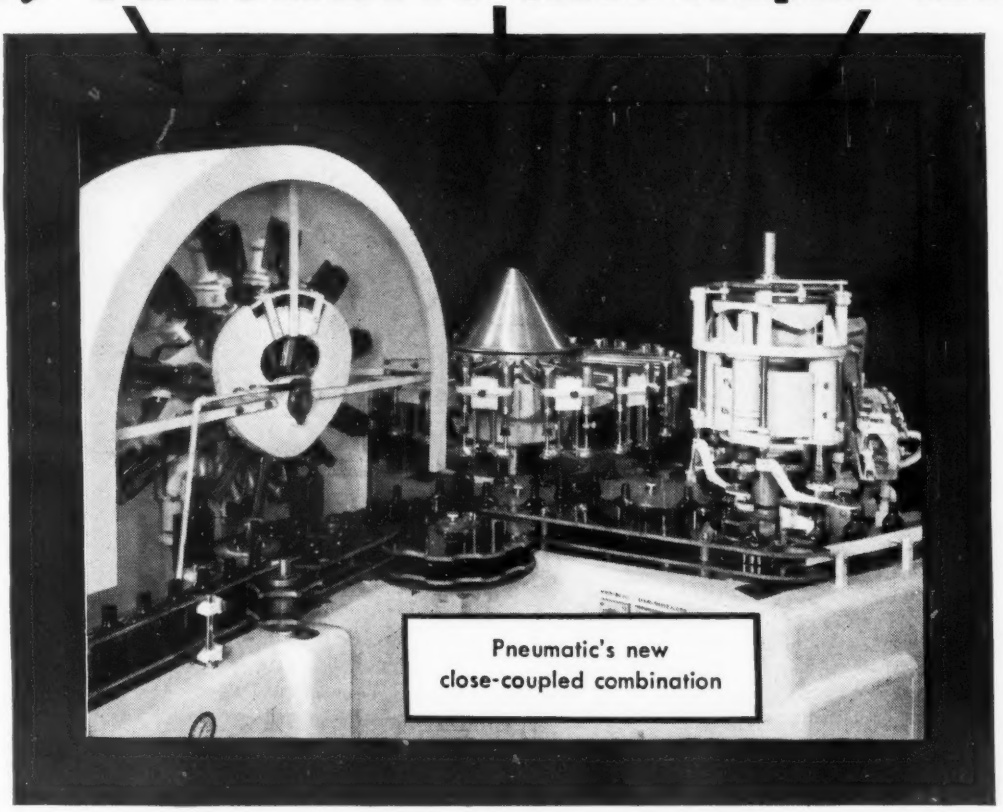

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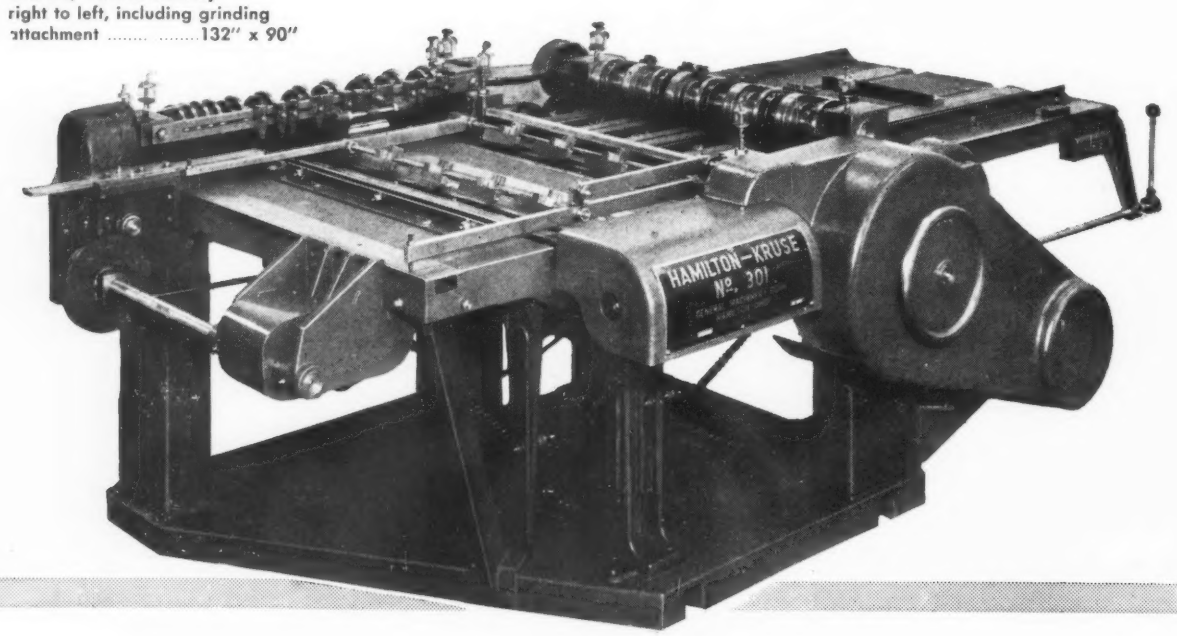

A new Duplex body-blank slitter or trimmer and slitter

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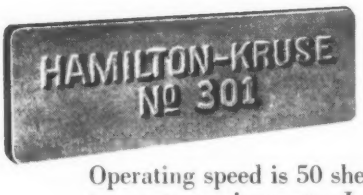

This is a 36-inch machine, designed for plain iron or tin sheets having a maximum thickness of approximately .017 inches. Operating speed is 50 sheets per minute, or slower to meet requirements. In the first operation, the slitter will trim and slit sheets up to 36 inches square, and then automatically trim and slit the strips into body blanks in the second. Or, for cap stock and for blanking bodies of large size cans, the same basic machine — with a different feed arrangement — will trim sheets on the first unit and then trim and slit them on the second.

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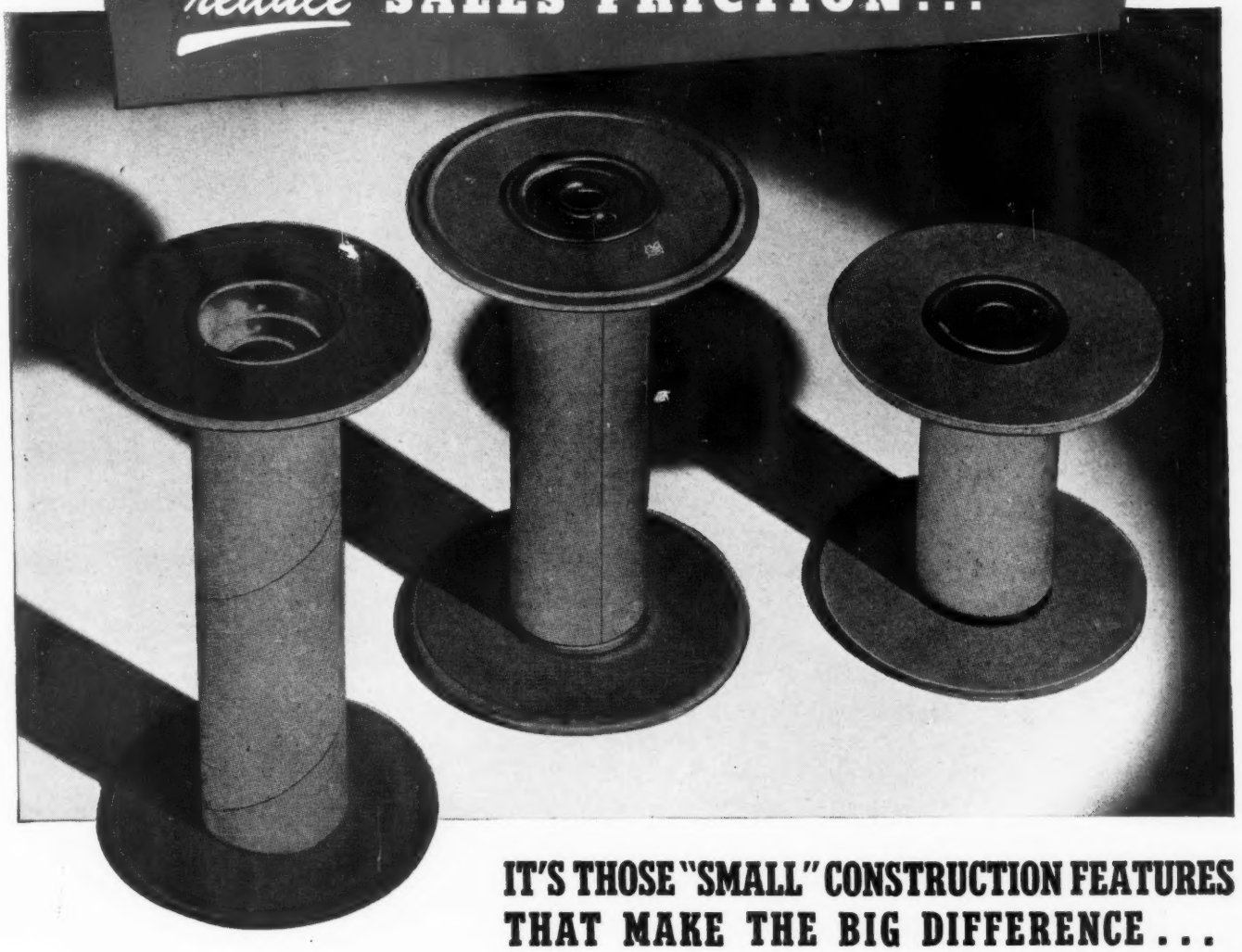

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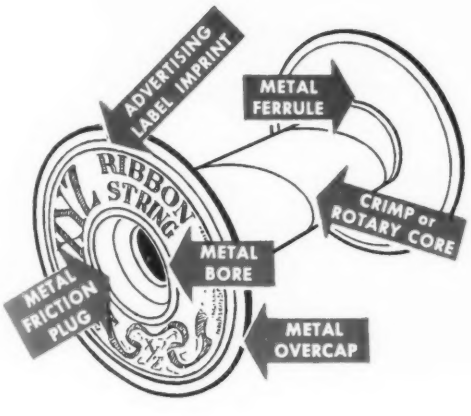

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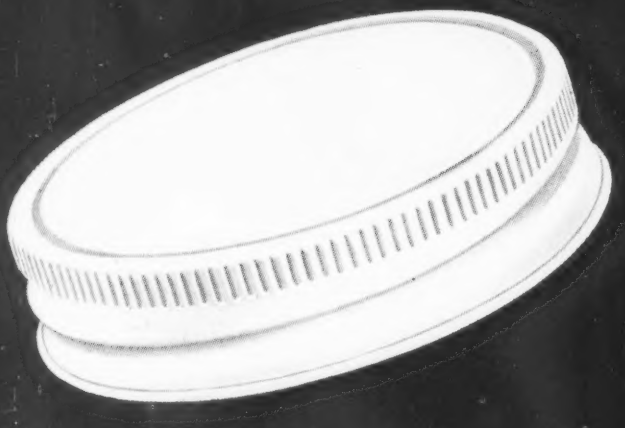

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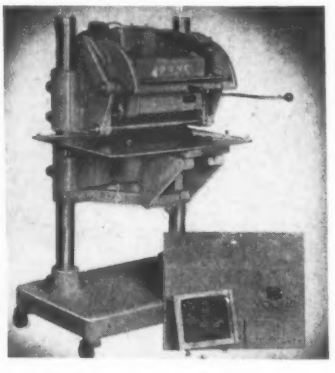
IMPROVED LIQUID FILLER

The siphon gravity filler made by Scientific Filter Co., New York, used for such widely different liquids as wines, disinfectants, shampoos, etc., has been redesigned and now incorporates several noteworthy improvements. Most important of the new features is the automatic inlet valve which can be regulated to control the pressure and therefore the volume of the incoming liquid. This automatic inlet valve has three controls for pressure, making the machine adaptable to all plant operating conditions. The bottle rest is controlled by a specially designed turnbuckle which affords micrometric adjustments, it is claimed, for accurate filling.

PRINTS SHIPPING CONTAINERS

N. A. Young Co., Racine, Wis., announces a carton printer for packers who wish to print or imprint their shipping cases as they need them. This carton printer is said to be the solution for short runs or mixed shipments and offers a way of imprinting special data on cartons that are already printed. It prints from rubber, either type, logotypes or engraved dies. Any unskilled attendant can handle both the setting of the type and the operation of the machine. Shipping containers are placed on an attachable table in knocked-down form and the table is removed when empty cartons with bottoms made up are to be printed. In continuous operation, the printer produces 30 impressions per min. Mounted on casters to make it portable, the printer can be plugged into any convenient light socket for power.



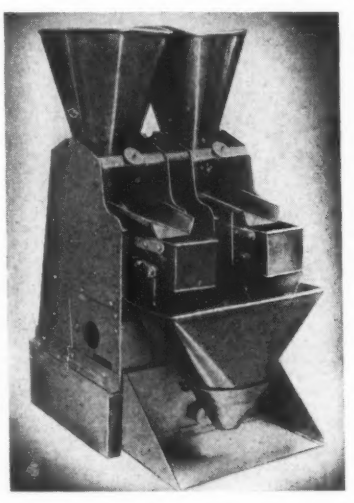
MATERIALS HANDLING EQUIPMENT

The Yale & Towne Mfg. Co., Philadelphia, is making a new 120-in. telescopic tilting fork truck specially designed for maximum use of available head room in high-stacking operations. The high-reach feature—a full 10 ft.—can also be used in loading airplanes, street trucks and rail cars from ground level. The truck has a capacity of 3,000 lbs., travels at 2 miles per hr. under full load, lifts 8 ft. per min. with a 2,500-lb. load and tilts a full 18 deg. in 10 seconds. The 83-in. telescoped mast-height also permits the truck to operate under low head-room conditions.

Another new mechanism just introduced by this company is the "Magnetrol," a basically new dial scale which, they state, achieves for the first time a straight-line relationship between the platform load and pointer movement without specially filed cams. Its noteworthy features include a reduction of service adjustments and a full but light engagement between the pointer rack and pinion by a permanent magnet.

WEIGHING AND FILLING UNIT

The "Thrifty Weigh Duplex" is the latest net-weight filling unit for a variety of dry products produced by the Glengarry Machine Works, Inc., Bay Shore, N. Y. Embodying two filling stations which discharge into a single guide funnel, this compact machine will handle such products as beans, peas, rice, nuts, powdered materials, seeds and small hardware items at a speed up to 40 weighings per min., depending upon the type of material, in quantities from approximately 1 oz. to 5 lbs. Containers may be multi-sized bags, boxes, cans, jars, etc. The machine can be converted for greater output when production requirements increase by adding extra stations. Each weighing station of the machine is made up of four basic elements: the supply hopper, an electric vibratory feeder, a dump hopper mounted on a weigh beam and a solenoid-operated gate on the dump hopper. In operation, the feeder uniformly conveys the material from the supply hopper into the dump hopper. When the dump hopper receives a pre-determined weight of material, a slight movement of the beam cuts the current to the feeder, thus stopping the flow of material. The gate on the dump hopper is then opened by means of a switch—the type being optional.



GIVE YOUR PRODUCT Shatterproof PROTECTION with LUSTEROID Vials and Tubes

Customers appreciate products packaged in Lusteroid. They know that these products are *safe* from accidental roughness in handling because Lusteroid will not break.

It's worth looking into Lusteroid for product protection *and* distinctive packaging. There's economy in handling, labeling, packing and shipping. All colors of the rainbow—clear or opaque. Sizes from ¼" to 1¼" in diameter and lengths up to 6" with cork, slip-on or screw-cap closures.

Write for descriptive bulletin.

LUSTEROID CONTAINER COMPANY, INC.
10 Parker Avenue, West
Maplewood, New Jersey

This Wood Display by *Vermillion* Untied a "Small Package" Sales Knot

Here's a typical example of how Vermillion wood displays help solve sales problems. The W. A. Sheaffer Pen Co. found dealers asking for a better way to display and sell pencil leads and erasers—two small package items. Ordinary display racks took up counter space. When packages were stored behind the counter in drawers or cabinets, they were hard to handle because of their small sizes.

MADE SALES EASIER

A DISPLAY TURNED THE TRICK

A consultation with Vermillion produced the display illustrated above. It provided an eye-catching, sales-making display for the small packages as well as an ideal storage compartment.

SAVED COUNTER SPACE

AMAZING DEALER RESPONSE

In addition, this Vermillion-designed display saved counter space over old-style flat containers designed to hold similar packages. Sheaffer dealers everywhere enthusiastically agree that these Vermillion displays help increase sales and make sales easier.

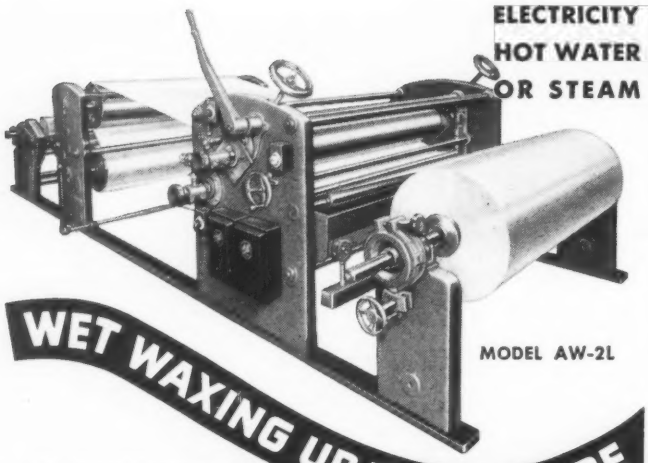
Immediate Consultation Prompt Delivery

Vermillion also makes wood packages that give your product added gift appeal. Carving sets, silverware and fruit cakes are just a few of the many products that are packaged in wood by Vermillion. If you have a packaging or display problem, write, wire or 'phone. We are available for immediate consultation — and we can guarantee delivery for the holiday season.

Wood Packages "MAKE" the Product—Wood Displays "MAKE" the Sale

W. R. *Vermillion* CO., INC.
2201 GRAND AVENUE, KANSAS CITY, MO.
Plant: Baldwin, Kansas

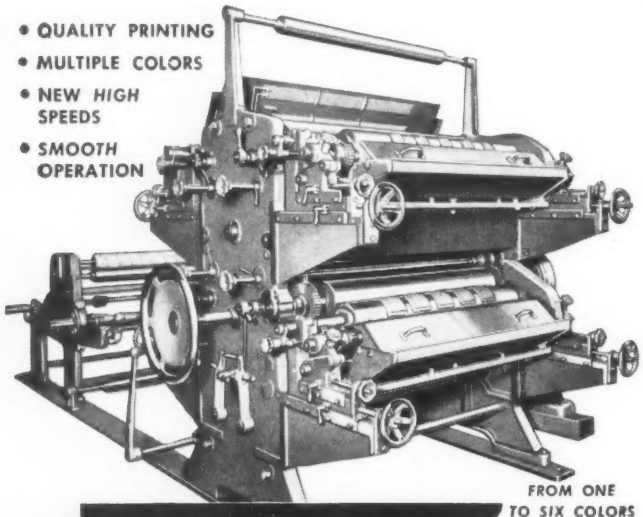
Packages for: **Silverware, Hollow-ground Cutlery, Kitchenware, Tools, Carving Sets, Stainless Steel Flatware.** ***Displays and Dispensers of all kinds.***



WET WAXING UP TO 80" WIDE

A new model Wet Waxer . . . featuring compact construction, functional flexibility of use, high speed, and electric, hot water or steam heating. Built in widths from 10 to 80 inches. Other models available for dry or contact waxing. Write for further information.

HUDSON-SHARP
MACHINE CO • GREEN BAY • WIS



ANILINE PRESSES

New designs and new presses to meet every production demand. Widths from 10 to 100 inches with from one to six color printing. Illustrated, is 4 color stack type press with center shaft rewind. Many other models now available. Write for further information.

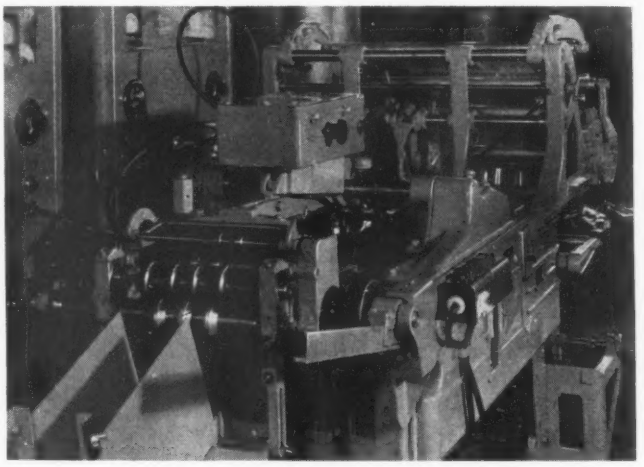
HUDSON-SHARP
MACHINE CO • GREEN BAY • WIS

Equipment and Materials (Continued)

i.e., platform trip, foot operated or automatic—and contents discharged. It is adjustable for varying speed of flow and weight. By means of a simple switching arrangement, the hoppers can be arranged to discharge alternately, thus resulting in high speed filling, or to discharge simultaneously, doubling the amount per weighing for heavy packages.

MACHINE MAKES SARAN BAGS

A standard Simplex bag machine was shown producing gusset-type saran film bags in the Dow Chemical Co. exhibit at the Western Packaging Exposition in August. The machine,



modified to handle saran film 517, was converted by Dow engineers in cooperation with the Simplex Machine Co. of Oakland, Calif. Sealing is accomplished through the electronic principle. The film is currently being used for liver sausage and other meat casings and with the development of this machine for electronic sealing, the company expects it will doubtless find increased usage in the food field for packaging dried fruit, meat, fruitcake and poultry.

NEW MOLDING COMPOUNDS

The Plastics Dept. of the American Cyanamid Co., New York, has introduced two new molding compounds. One is a low-priced urea formaldehyde under the trade name Beetle, available in black and brown and recommended for closures. The other, a highly translucent melamine-formaldehyde, is called Melmac 404. Both are available in limited quantities.

CRYSTAL-CLEAR BUTYRATE

Tennessee Eastman Corp., Kingsport, Tenn., announces the availability of Tenite II (cellulose acetate butyrate) in a new crystal-clear transparency. It is expected to broaden the applications of Tenite II to include products which require transparency approaching optical clarity. Since Tenite II is compatible with lacquers, combination of the crystal-clear plastic with lacquers should make possible the introduction of many innovations in package and product design.

FOIL MOUNTING ADHESIVE

A special foil-mounting adhesive recently announced by The F. G. Findley Co., Milwaukee, Wis., is said to produce a bond with a high degree of water resistance. This product, designated as No. 884 foil adhesive, may be used to mount

Strategic Location — Fa[illegible]ervice

Planes, trucks and trains all play their part in servicing the thousands of Old Dominion customers from the eight centralized plants in the South Atlantic area. This fast delivery of goods and services is augmented by the fast delivery of ideas — that potent weapon that changes packages to sales appeals.

Old Dominion's new, streamlined package design service is yours for the asking. Old Dominion designs and makes every type of paperboard and acetate container. Write today for free counsel on your packaging problems. Old Dominion will deliver faster . . . and cheaper, too.

For a booklet on Old Dominion's design and packaging service, write Department 100.

OLD DOMINION *Box Company Inc.*

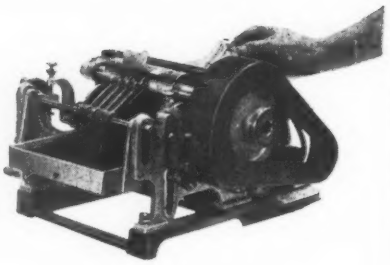
PLANTS LOCATED THROUGHOUT THE SOUTH

CHARLOTTE, N. CAROLINA

THE SOUTHERN BOX MAKER WITH A NATIONAL REPUTATION

Here's REAL ECONOMY

for Part-time Labeling . . .



"PACE-MAKER"
LABEL PASTER

applies hot or cold adhesive to labels . . . . FAST!

Built for long years of hard, constant use, with cut gears; cast iron frame; brass and bronze wearing parts—made in 4 sizes.

- STURDY
- NO "SCRAPER-BAR"
- TWIN GLUE ROLLS
- ADJUSTABLE PICK-OFFS
- SELF CLEANING FEATURE

NEW JERSEY MACHINE CORPORATION
1510 Willow Ave. • Hoboken, N. J.
Factory offices in Chicago, Cincinnati, Los Angeles
502

The MASON MAILMASTER . . .

. . for Postal Shipments

No Wrapping — No Tying,
65 sizes — 1,000,000 boxes in stock for immediate delivery.
—Send for Catalogue.

THE *Mason* BOX COMPANY

MAIN OFFICE
ATTLEBORO FALLS, MASS.

NEW YORK OFFICE
175 FIFTH AVE.

FACTORIES: ATTLEBORO FALLS AND TAUNTON, MASS.

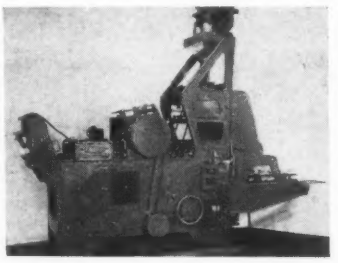
MANUFACTURERS OF A COMPLETE LINE OF SET-UP BOXES

Equipment and Materials
(Continued)

foil to such materials as sulphite paper, tissue, plain and one-side-coated glassine. It may also be used on parchment, the makers claim, where resistance to boiling water is a requisite. The company further reports tests have shown it produces a flexible, highly water-resistant film that stands up readily to hot embossing and shows no delamination after a week's submersion in water at 70 deg. F.

BAG MAKING, FILLING AND SEALING MACHINE

Acme Pattern & Machine Co., Inc., Buffalo, N. Y., designers and builders of special machines, announce the availability of two standard models for bag making, filling and sealing. The Model No. 500, shown in the accompanying photograph, will handle free-flowing materials such as beans, peas, lentils, rice, noodles, nuts, candies, etc., forming and sealing satchel-bottom bags. The machine operates with any heat-sealing material such as cellophane, Pliofilm, heat-sealable papers or foils, either plain or printed, in roll form. When printed material is used, a photo-electric cell arrangement controls the cut-off to insure proper registry of the printing. Both single- and double-walled satchel-bottom bags can be produced at speeds varying from 25 to 30 packages per min., depending upon the product being handled. Both net weight or volumetric filling devices are offered. The machine has a bag size range of $^3/_4$ by $2^1/_2$ by 5 in. minimum to $2^1/_2$ by $4^1/_2$ by $10^1/_2$ in. maximum, with one end of the bag open. Change-over from one size to another is easily and quickly effected. After automatically forming, filling and sealing the bag, the machine also seals down the top fold flap. When using cellophane, the makers claim, an extremely strong package is formed without the sharp creases found in prefabricated bags and the tightness of the package is assured by forming the bag around the contents. The Model No. 510 produces a pillow-type bag at the same speeds. It handles a range of bag sizes of from 3 by 6 in. minimum to 5 by 12 in. maximum, with one end of bag open.

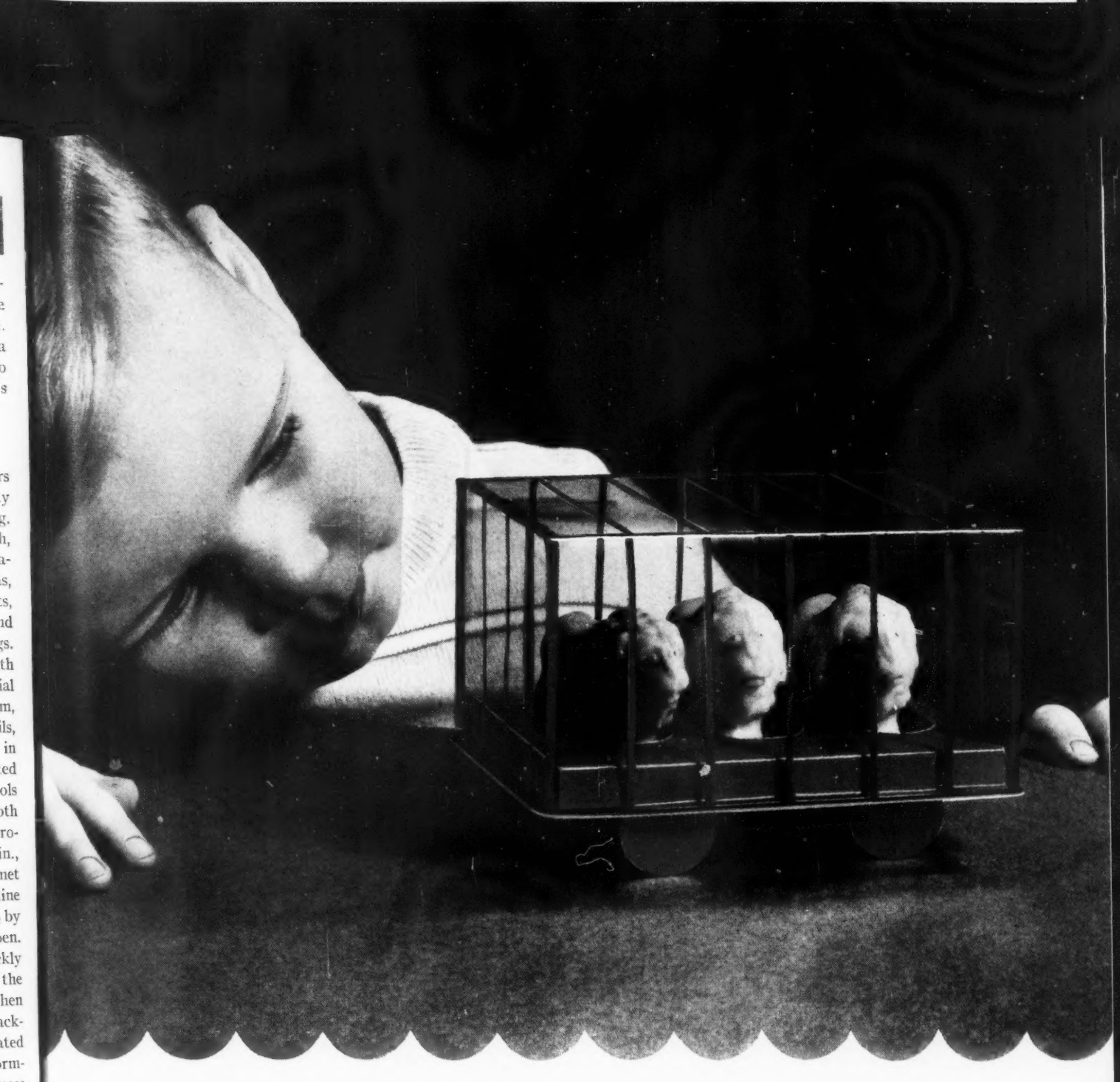


PADS FOR PRE-PACKAGED MEATS

Loroco Industries, Inc., Reading, Ohio, has developed a line of multi-sized and shaped laminated meat pads specially designed for use in pre-packaging of fresh meats. These pads, surfaced with interleaving paper, are said to be bloodproof and greaseproof without sacrificing the absorbive qualities necessary to retain the bloom of the meat. Other noteworthy features, the maker claims, include a moisture barrier adhesive which prevents seepage of meat juices through to the backing board so that the package never gets soggy, rounded corners that will not puncture the transparent wrapping and stock colored so that it blends with the color of the meat to give it a natural effect.

FLEXIBLE PLASTIC PRINTING PLATE

A flexible, plastic-molded printing plate that resists the action of the hydrocarbon ester or ketone solvents used in fast-drying hydrocarbon inks has been developed by Mosstype



Zoo with a view

This soap menagerie—like many another novelty product—must be seen to be appreciated. And it is . . . packaged in Kodapak Sheet.

For Kodapak Sheet is a sparkling, optically clear plastic material. It makes up into inviting individual display cases that permit buyers to view every detail of the product. At the same time it prevents the marks that cause markdowns . . . protects merchandise from fingering, dust, store wear.

Kodapak Sheet is supplied in two basic forms: Kodapak I, cellulose acetate, in gauges from No. 88 (0.00088″) to 20 thousandths (0.020″); Kodapak II, cellulose acetate butyrate, in gauges from No. 90 (0.00090″) to No. 200 (0.00200″).

The extensive facilities of the Kodapak Demonstration Laboratory in Rochester are available to show fabrication possibilities and practical uses of Kodapak Sheet. Write for an appointment.

Cellulose Products Division
Eastman Kodak Company, Rochester 4, N. Y.

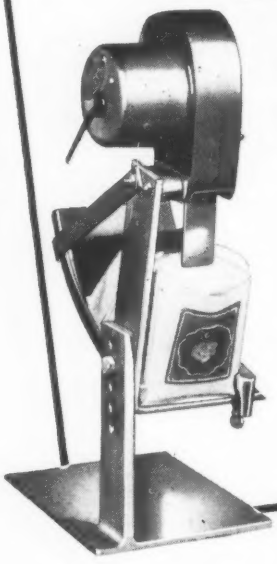
FOR THE DISPLAY YOU WANT . . . THE PROTECTION YOU NEED

Kodapak Sheet

"Kodapak" is a trade-mark.

Kodak

Faster... AT BAGGING PRODUCTS AT BAGGING PROFITS



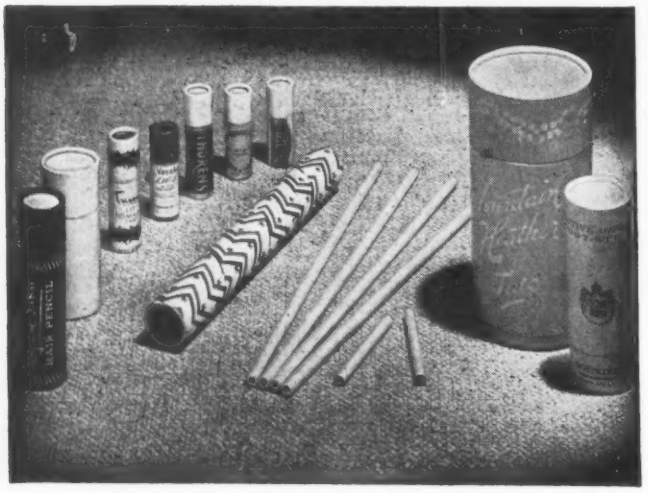
LOW IN COST
EASY TO USE

Designed to handle bagged products with a minimum of effort at a maximum speed. Simple adjustments for height . . . tilting forward or backward enables operator to set machine at easiest position. Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower keeps bag clean and free from foreign matter.

ROCKFORD Anderson BROS. MFG. CO. ILLINOIS

Send today for Bulletin No. 9-29

ANDERSON BROS. MFG. CO., ROCKFORD, ILLINOIS



Attractive Packaging • Attractive Sales with

TUBULAR PAPER PACKAGES

Proper packaging will help make for larger sales of your product. Our eye-appealing Tubular Paper Packages are sturdy, light-weight and can be attractively decorated with your own design or in a wide range of colors.

Diameters: 1/16" to 6"—in any lengths.

WE CAN SOLVE ANY TUBULAR PACKAGING PROBLEM

DIAMOND STRAW & MACHINE CORPORATION

32-36 WEST 18th STREET DIAMOND NEW YORK 11 N. Y.

Equipment and Materials
(Continued)

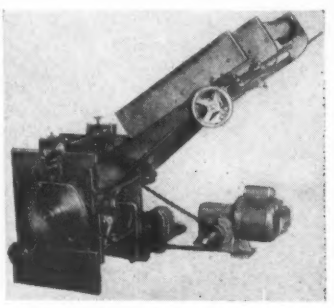
Corp., Brooklyn. The new plate is expected to have a wide application in the printing of Pliofilm and other plastic packaging films on aniline-type presses. Printing quality, service life and handling of the plate, as well as feel, weight and pliability, are said to equal that of natural and synthetic rubber plates. The company fuses a special backing material to the plate to preserve its dimensional accuracy and permit it to be mounted on printing cylinders with standard two-way adhesive. The makers report that while this plate offers absolute resistance to hydrocarbon solvents, it is adversely affected by water or alcohol and therefore should not be used with inks containing either base.

VIBRATORY VERTICAL BOWL FEEDERS

Syntron Co., Homer City, Pa., has devised a method of applying electro-magnetic vibration to a bowl container which produces a circular traveling and climbing motion of small pieces, parts, bulk powders, etc. By having a grooved track ramp up the inside of the wall of the bowl, these small pieces can be fed one at a time in a pre-determined manner to a machine, to packages or for inspection, counting or assembling to other parts. The illustration shows how small parts can be fed, one at a time. Speed of feed, starting and stopping of flow can be readily controlled. The size of the piece to be handled, particularly its length, determines the arc of the grooved track and, consequently, the size of the bowl. Used as a feeder for powders, it will feed down to extremely small quantities and stream size, furnishing its own agitated and vibrated bowl-supply hopper. It can be operated from 110-, 220- or 440-volt A.C. current.

MINIATURE ROTOGRAVURE PRINTING PRESS

Francis C. Kilb, Hempstead, L. I., N. Y., is offering a miniature rotogravure press specially designed for use in conjunction with food-wrapping and bag-making machines. The small size of this press, together with its low cost and simplicity of operation, the maker claims, is its chief difference from large standard rotogravure presses now in use. The unit can be mounted on any paper-fabricating machine and as many colors as desired may be used in combination. It will print on cellophane, gloss-surface papers, light krafts and foils up to 10 in. wide. When the press is run separately from the packaging machine, it will print wrappers and labels and fly-cut them in one continuous operation. One print cylinder, not engraved, is furnished with each printing unit.



Kodapak Sheet
"Kodapak" is a trade-mark.
Kodak

Kimble Neutraglas serum bottles; serum vials; trimmed stem and "Tuf-Top" ampuls

Only Kimble manufactures all three . . .

Serum bottles, vials, ampuls . . . all of resistant Neutraglas

• Kimble is the *only* glass manufacturer from whom you can get serum bottles, serum vials and a complete line of trimmed stem and "Tuf-Top" ampuls in Neutraglas.

Neutraglas is a borosilicate glass of special formula with unique properties. It has the highest resistance to chemical attack of any known "workable" glass . . . is ideal for the storage and application of parenteral solutions requiring utmost purity.

Neutraglas has high resistance to thermal and mechanical shock . . . withstands the wear and tear of routine usage. Send for quotations and delivery schedules on needed container types and sizes.

SPECIFY KIMBLE FOR ASSURANCE OF CONTAINER QUALITY

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company

Plants and People

Food Machinery Corp., San Jose, Calif., has announced its entry into the dry-packaging machinery field through the acquisition of **Stokes & Smith Co.** of Philadelphia. One of the pioneer and leading manufacturers of packaging and filling equipment for dry products, Stokes & Smith produce such machines as the Stokeswrap, the Auger-Vac, the Neverstop carton filler and sealer. The acquisition of the company by Food Machinery thus supplements their own line of liquid and semi-liquid food-filling machines. Direct management of Stokes & Smith's operation will continue under the present executives and other personnel, according to an announcement. Engineering activities of the company will be continued in Philadelphia and will be supplemented by the extensive research and engineering facilities of the parent company.

M. T. Heller, founder and president of **Milprint, Inc.,** Milwaukee, packaging converters, has retired as president. He will remain chairman of the board. **William Heller** succeeds him as president. Other changes in the company include the appointment of **Roland N. Ewens** as executive vice president and treasurer; **Arthur Snapper,** secretary and assistant treasurer; **Roy E. Hanson** to vice president in charge of sales; **Bert Hefter** to vice president and sales manager; **Lester R. Zimmerman,** vice president, and **Shy Rosen,** vice president in charge of Eastern operations. **Herman Gronauer,** formerly of Wurzburg Bros., has been named manager of Milprint's West Coast operations. **Jack Manion** and **Paul Hultkrans** of the Milwaukee office have been appointed assistant general sales managers.

W. Heller

R. E. Hanson

A. H. Ross has resigned as vice president of the **A. H. Ross Co., Inc.,** subsidiary of **Rockwell Mfg. Co.** It has also been announced that the Cincinnati sales office of the company has been closed and that all correspondence should be addressed to the company at Box 998, Dayton, Ohio.

Robert M. Bergstein, president of **The Interstate Folding Box Co.,** announces the opening of the firm's own boxboard mill at Miamisburg, Ohio, just 12 miles away from the company's converting plant at Middleton. The new mill is known as the Miamisburg Boxboard Div. of the parent company.

Announcement has been made of **Stanley J. McGiveran's** appointment as general manager of the **Kimble Glass Division** of **Owens-Illinois Glass Co.** Mr. McGiveran, vice president of Owens-Illinois, joined the company in 1927 and has been general sales manager of this division since 1946. He was largely responsible for the introduction of the new Opticlear vial, it is said.

The company also announces these appointments in the market development department: **Newell A. Pontet,** Chicago district manager; **C. A. Parks,** Southwestern assistant district manager, and **James A. Maher,** field merchandising representative in Chicago.

A. J. Davidson has resigned from the United Board & Carton Co.'s Urbana, Ohio, branch to join the Miamisburg Boxboard Div. of **The Interstate Folding Box Co.**

At the last board of directors meeting, **Carl A. Lyon** was elected vice president of **I. F. Schnier Co., Inc.,** San Francisco packaging jobbers. Mr. Lyon will continue to serve as general manager also.

C. A. Lyon

A building in Minneapolis, Minn., has been purchased by **Bemis Bro. Bag Co.,** St. Louis, for use by its packaging service department. This department produces bag-handling equipment and engages in the development of new bags. **W. J. Geimer** is the manager and **H. V. Kindseth** is in charge of development work.

Bemis has also announced the acquisition of the **Gallie-King Bag Co.** in Houston, Tex. The company will use this new plant as an addition to its present facilities in Houston.

Adolph Gottscho, Inc., New York, manufacturers of marking devices, announce the appointment of the **Richard Eisenmann Export Co.,** 20 E. 33rd St., New York, as their export division.

Alvin Sobel has been appointed divisional sales supervisor of the pressure-sensitive tape department, **Leeds Sales Co., Inc.,** New York. The company also announces the opening of a new warehouse and contract packaging department at 1 Pleasant Ave., Clifton, N. J.

Cross Paper Products Corp. announces they have moved to new offices at 4377 Bronx Blvd., New York. Telephone number is now Fairbanks 4-1486.

Appointment of **B. R. Scheff** as Eastern sales manager for **Ralph Chaffee & Co.,** San Francisco, manufacturer of heat-sealing equipment, has been announced. He will make his headquarters in the Book Bldg., Detroit.

General offices of the **Empire Box Corp.,** Chicago, will be moved to 17 E. Chestnut St. upon completion of alterations remodeling the building into offices.

A regional sales office of **Plax Corp.** was opened last month in the Commercial Trust Bldg., Philadelphia. **E. S. March** is in charge of the office.

Full production of acrylic resin, polyethylene and nylon molding powders will begin this fall at the new **E. I. du Pont de Nemours & Co.'s** plastic materials manufacturing plant near Parkersburg, W. Va. The plant, named the Washington Works, is built on land once owned by George

H&D BOXES

DESIGNED to protect

DESIGNED to display

This corrugated shipping display box is easy to handle in the packing department and provides real product protection in transit. But this is only the beginning. When the box reaches the dealer, it is quickly opened into a colorful, sales producing counter display. It exhibits and merchandises the product at point of purchase and increases sales. For an outstanding sales success consider the H & D Duplex. Consult the H & D Package Laboratory on ALL packaging problems.

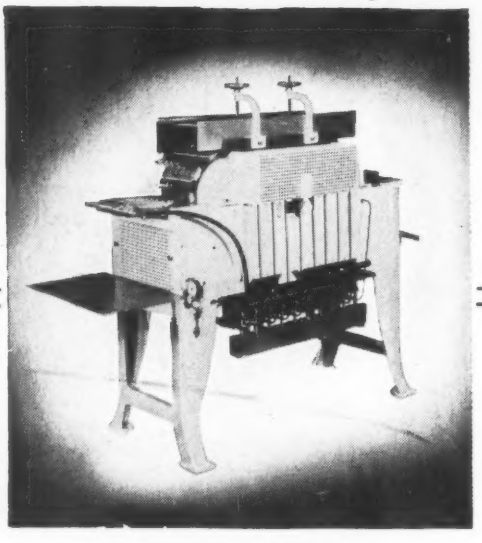
HINDE & DAUCH

Authority on Packaging

EXECUTIVE OFFICES: 4805 DECATUR ST. SANDUSKY, OHIO

FACTORIES IN:

BALTIMORE 13, MD. • BUFFALO 6, N. Y. • CHICAGO 32, ILLINOIS
CLEVELAND 2, OHIO • DETROIT 27, MICH. • GLOUCESTER, N. J.
HOBOKEN, N. J. • KANSAS CITY 19, KANSAS • LENOIR, N. C.
MONTREAL, QUEBEC • RICHMOND 12, VA. • ST. LOUIS 15, MO.
SANDUSKY, OHIO • TORONTO, ONTARIO • WATERTOWN, MASS.

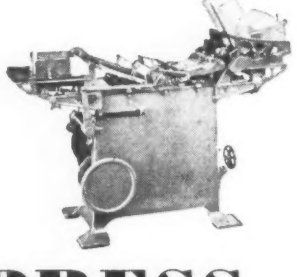


The PerfeKtum AMPWASH

A unique machine which provides a new and improved method for washing and cleansing ampuls, vials, tubes, etc.

Semi-automatic in operation, the AMPWASH feeds, cleanses and discharges the ampuls rapidly and with a minimum of breakage. The AMPWASH is sturdily built of corrosion-resistant materials and is very flexible in operation. With a few simple adjustments, the machine may be adapted to feed and cleanse glass containers of a wide variety of sizes and shapes. *Write for literature on the AMPWASH and our other ampul filling and sealing equipment.*

PerfeKtum
PRODUCTS COMPANY
Established 1922
300 Fourth Ave. New York 10, N. Y.



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FOR	IMPRINTS
Folding Cartons	Batch Numbers
Paper Products	Blockouts
Booklets	Flavors
Labels	Colors
	Prices
	Codes
	Dates
	Sizes

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Plants and People
(Continued)

Washington and consists of 17 buildings. Materials are produced there in straight-line processes that begin with the movement of chemical raw materials from tank farms and end with finished products, packaged and ready for shipment.

The appointment of **Kenneth E. Joy** as general sales manager of **Bostitch, Inc.,** Westerly, R. I., has recently been announced. Bostitch manufactures stapling machines.

K. E. Joy

Jonathan H. Sprague, Jr., has been appointed technical representative of **Monsanto Chemical Co.** in Washington, D. C. He will join the staff of **Philip Singleton,** assistant to the president, in charge of the Washington bureau. **James B. Irwin, Jr.,** has also been appointed assistant to the president, succeeding **R. U. Haslanger,** who has been named assistant to the general manager of the Western division at Seattle.

Three personnel promotions are announced by **B. F. Goodrich Chemical Co.: H. F. Miller,** production manager of plants with headquarters in Cleveland; **H. B. Warner,** plant manager of Avon Lake Experimental Station; **F. C. Hands,** manager of Plant 3 in Akron.

White Metal Mfg. Co., Hoboken, N. J., manufacturer of collapsible tubes, has appointed **H. W. Clowe & Co.,** 410 Barnett-Madden Bldg., Jackson, Miss., exclusive representative for Alabama, Arkansas, Louisiana and Mississippi.

Announcement has been made of the appointment of **Dr. Morton M. Rayman** as chief of the Microbiological Branch of the Food Research Div., **Quartermaster Food & Container Institute,** Chicago. He was formerly with Publicker Industries, Inc., Philadelphia.

James Boyd has been appointed general sales manager of the **Lima-Hamilton Corp.'s Hamilton Division.** This division manufactures machine tools, can-making and special machinery.

Charles C. Bush has been promoted to manager of the Cincinnati Division of the **General Box Co.,** Chicago.

Chairman of the Exposition Committee for the **Third National Plastics Exposition** is **Nelson E. Gage.** He is vice president and general manager of American Insulator Corp., New Freedom, Pa.

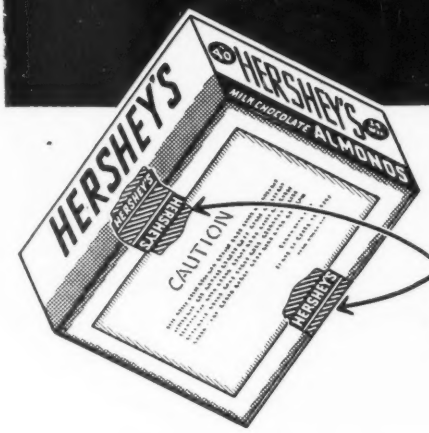
Gustave Rubner, Inc., manufacturer of decorative packaging materials, has moved to 5925 Broadway, New York. Both offices and factory are now located at this address.

Lee Hickox has been elected vice president of **Container Laboratories, Inc.** He will remain at the company's Chicago office.

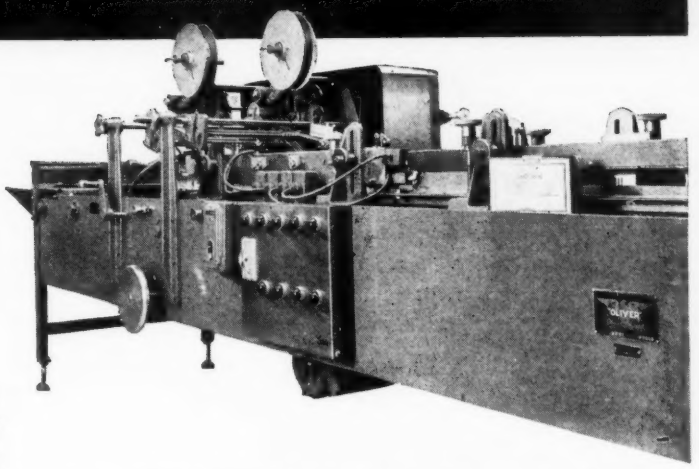
The silver anniversary of Container Laboratories was celebrated last month. Organized in 1923, the company now has laboratories in New York, Chicago and San Francisco with field offices in Los Angeles and Milwaukee. Three of the original founders are still active in the com-

Have you seen the new Hershey Carton?

Label-Sealed on the "OLIVER"



Two roll-type thermoplastic labels securely seal cover to bottom of telescope carton



The new Hershey Chocolate Bar carton is the printed full telescope type. A specially designed "Oliver" Labeling machine compresses the packed carton in two directions and applies two roll-type thermoplastic labels (printed by Oliver), securely sealing the cover to the bottom. Machine is adjustable to handle cartons in various sizes. The finished package prevents pilferage; and, of equal importance, is convenient for the dealer to open. This is one more case where "Oliver" engineers came up with the right answer.

● *In addition to complete Labeling Machines, the "Oliver" Roll-Type Labeling System is a feature of "Oliver" Wrapping Machines. Also, "Oliver" Labelers and Imprinters can be attached to most wrapping machines. Or, our engineers will design and build a machine to meet your special needs. Write for details.*

OLIVER MACHINERY COMPANY · GRAND RAPIDS, MICHIGAN

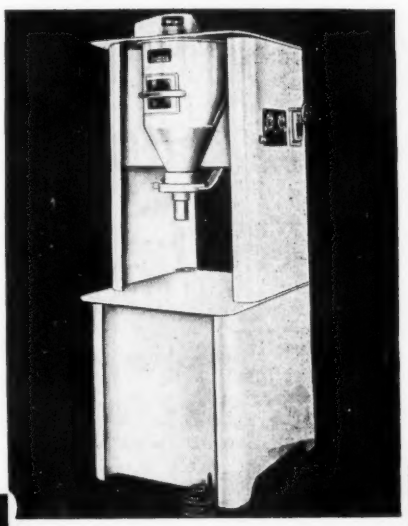
Check these facts about the RODGERS FILLER

CONTROLLED OPERATION . . . Speeds can be set to fill any type of container with charges of ⅓ ounce to 10 pounds, and at rates to suit your specific production line.

100% DIAL CONTROL FOR CHANGEOVERS . . . You just turn the dials to make the change—no tools, no tinkering, no time-wasting.

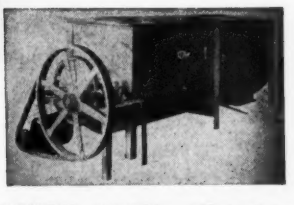
CLOG-PROOF OVERDRIVE . . . Motor and all moving parts located over fill tube. Hence they can't clog with powder or paste. You save maintenance charges, sharply reduce production down-time.

Since its introduction only 18 months ago, the RODGERS FILLER has successfully handled every filling job assigned it—from viscous, heavy pastes to fine, flaky powders! That's because we can supply it with automatic special-duty attachments and conveyors.



Before you buy new or additional paste and powder filling equipment, you should know that the new RODGERS FILLER is the only filling machine with *all* these special features.

Write now for your free copy of Bulletin M-3, containing detailed information about this amazing new Filler.



POWDER MIXERS. All steel or stainless steel. Capacities from 300 pounds to 2½ tons. Equipped with motor drives.

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There's Power to Preserve . . . Wet-proof, tasteless, non-toxic—polyethylene packaging maintains the original condition of whatever is sealed within it.

There's Power to Protect . . . Inert to acid, alkali and contact with metals—polyethylene packaging prevents attack and contamination by outside agents.

There's Power to Appeal . . . Polyethylene packaging is attractive to customer and stock clerk alike. Its crystal clarity lends sparkling highlights to the contents and permits immediate identification.

There's Power to Prove Itself . . . Try it on your particular case. Note how it stretches several times its size for snug fit. Learn how simply and securely it is heat sealed. See how it improves on your present packaging. Write for free samples and full information today.

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MANHASSET

ANILINE PRESS
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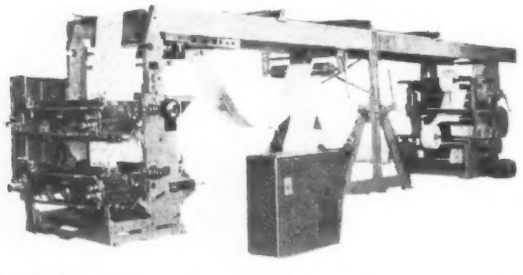

- Prints, Slits, Rewinds and Perforates in one operation.
- Speed—600 and more feet per minute.

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255 EAST 2nd STREET—P.O. BOX 231—MINEOLA, N. Y.

Plants and People
(Continued)

pany that now has a staff of 50 packaging engineers. Scope of services now offered by Container Laboratories includes package research activities, plant surveys, consultation on specific packaging problems and freight-car inspections, in addition to the original program of testing and designing shipping containers.

Arnold L. Crowell and **Charles L. Crowell** announce the formation of the **Crowell Carton Co.,** Marshall, Mich. Ground was broken recently for the first of four buildings which will comprise the manufacturing plant in Marshall. The new company will produce folding cartons, display material and other specialties. Messrs. Crowell, who are twin brothers, are well known in the packaging industry. Arnold was formerly vice president in charge of sales for The Ohio Boxboard Co. Charles was associated with the Union Paste Co. at Hyde Park, Mass. The former is president of the new company and will be in charge of the marketing, while Charles is vice president and will handle the production responsibilities.

A. L. Crowell

C. L. Crowell

New Western Group secretary of the **Folding Paper Box Assn. of America** is **John T. Curry.** He will serve as secretary of the Lake Michigan, Cleveland, Ohio Valley, St. Louis, Missouri Valley and Southern groups of the association. **Raphael Block,** who has been temporarily serving as Western Group secretary, will devote his full time to the association's public relations program.

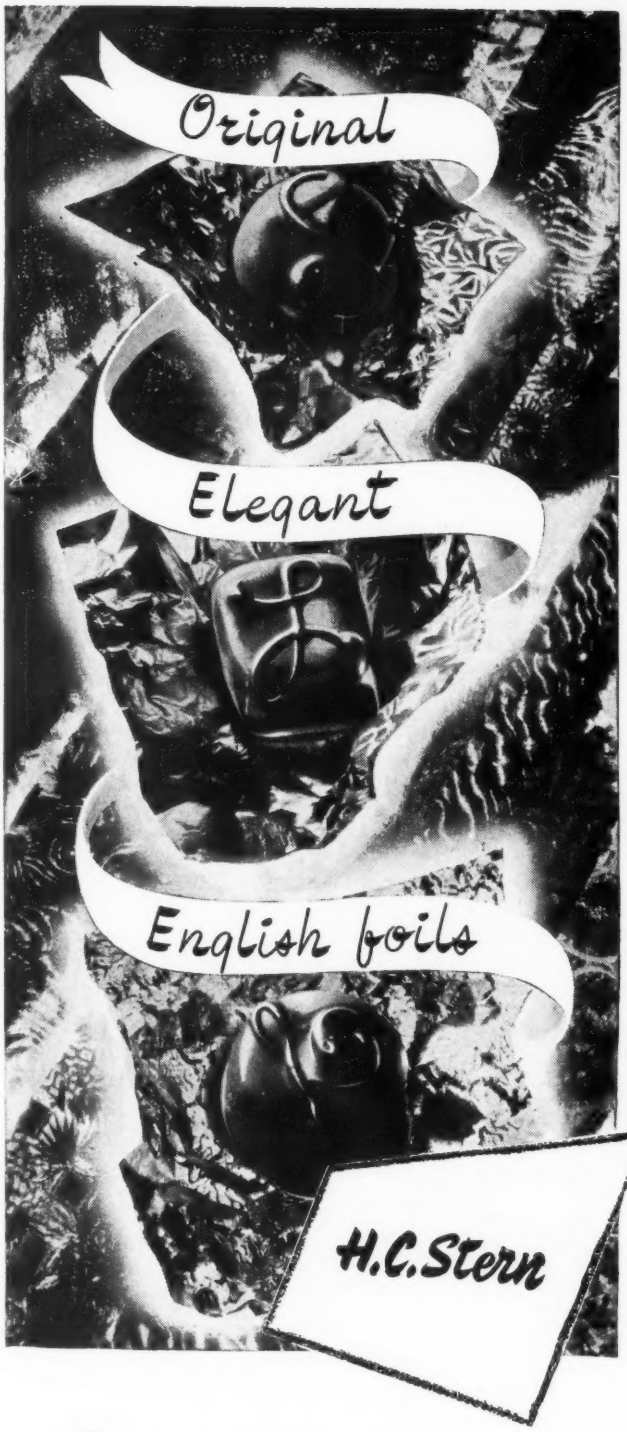
Ace-Triune Cartons, Inc., is the name of the new Chicago corporation succeeding **Triune Carton Corp.,** it has been announced. **John C. Plantefaber** has been named general manager; **Martin Schneider,** resident manager. Officers of the new corporation include: **Ace C. Fessenden,** president; **Mr. Plantefaber, Raymond E. Farrar** and **Michael S. Lambert,** vice presidents; **Emory J. Smith,** secretary, and **Maynard G. Fessenden,** treasurer. The manufacturing plant will be located in White Pigeon, Mich.

Charles A. Quinn has been appointed assistant art director of **The Forbes Lithograph Co.'s** New York art staff.

Sun Chemical Corp., New York, announces the appointment of **Dr. Wilber Otis Teeters** as director of research to succeed **Dr. Paul V. McKinney,** who has resigned. Dr. Teeters joined the company in 1946 as principal research chemist. He was previously with Rohm & Haas.

Announcement has been made that **J. Fred Crane** has been named general manager of **Joe Salwen Paper Products Corp.,** New York. He was formerly in charge of the company's Philadelphia branch office.

Recipient of the Gold Medal of the **American Society for Metals** for 1948 is **Francis Cowles Frary,** director of research, **Aluminum Co. of America.** The medal is awarded annually for "outstanding metallurgical knowledge and great versatility in the application of science to the metal industry, as well as exceptional ability in the diagnosis and



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Send for assorted Parcel £3.3.0 d or U. S. $13.00

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CRAVEN HOUSE·121 KINGSWAY·LONDON·ENGLAND

CARBONA PRODUCTS CO. Selects

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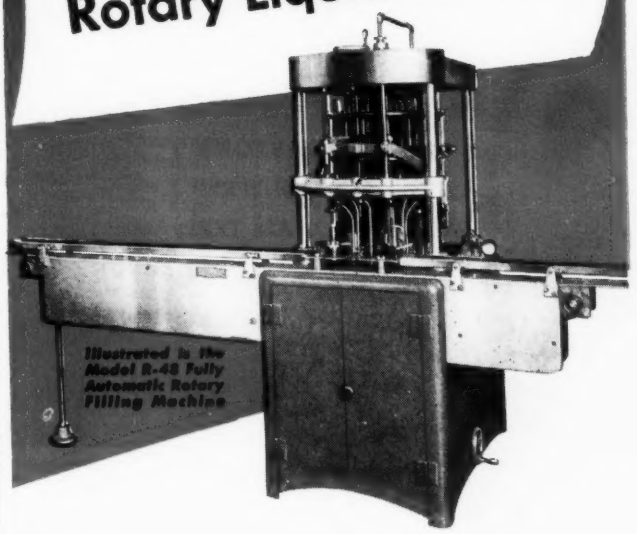
Fully Automatic Rotary Liquid Fillers



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The Carbona Products Co., world-renowned for over 50 years, uses MRM Filling Machines with great economy, making their products marketable throughout the world.

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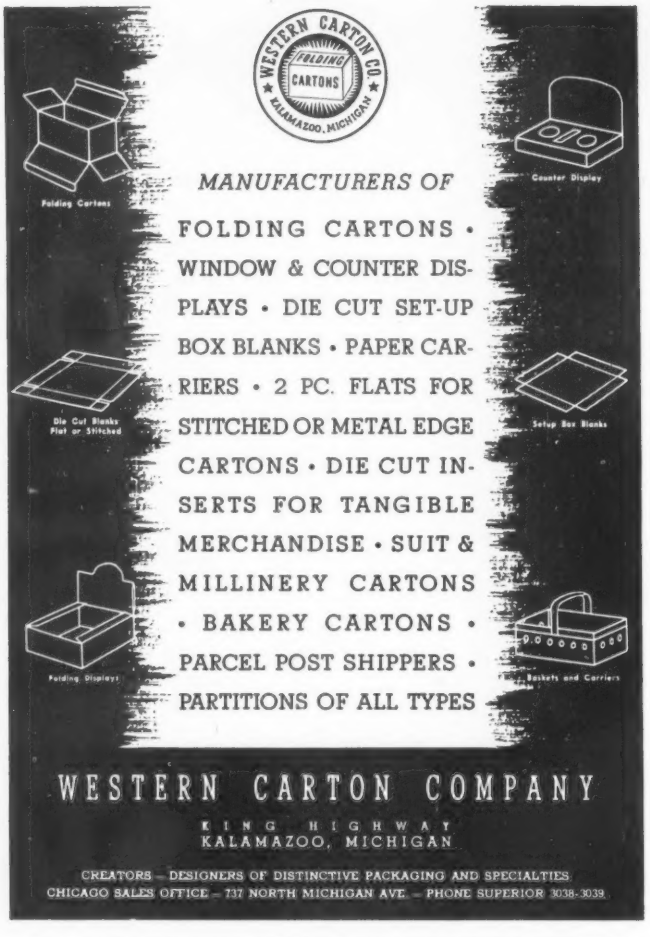
Manufacturers of a complete line of fully automatic and semi-automatic liquid filling equipment.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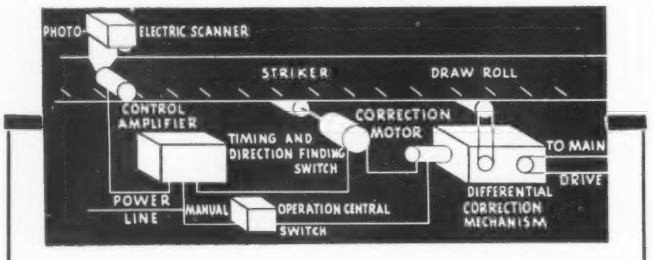

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2-WAY REGISTRATION CONTROL

- All component parts needed for perfect registration control.
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(Factory ASHLEY, OHIO)

Plants and People
(Continued)

solution of diversified metallurgical problems." Mr. Frary will be presented with the medal during the National Metal Congress and Exposition in Philadelphia, October 25 to 29, inclusive. **Dr. Willard H. Dow** president of **Dow, Chemical Co.,** will receive the society's Medal for the Advancement of Research for 1948 also.

Harry A. Greene has been appointed art director for **United Board & Carton Corp.,** New York. He was formerly associated with the Empire Box Corp. in the same capacity.

H. A. Greene

Several personnel reappointments of interest have been reported by the **Atlas-Boxmakers, Inc.,** Chicago. **Alfred J. Dreyfus,** vice president, is in complete charge of sales; **Victor E. Hemming** has been named sales manager in charge of corrugated and fibre shipping-container sales; **Gerald T. Green,** sales manager in charge of folding carton and set-up box sales. **Robert A. Sellery,** formerly sales manager of Fiat Metal Mfg. Co., has joined the company as assistant sales manager and **Charles Boitel,** formerly with Container Corp. of America, has joined the sales staff in charge of design and development.

J. J. Lipp Paper Co. announces the appointment of **Dale B. Potter** as sales manager. Mr. Potter was formerly with National Container Corp.

It is announced that **Joseph P. Novak** has been named a packaging engineer at **Reynolds Metals Co.,** Louisville, Ky. Mr. Novak, in addition to his designing of products made by the company, will serve as liaison man for package designing between Reynolds' purchasing department and Reynolds' suppliers. He was formerly with Hinde & Dauch Paper Co. and is a member of Packaging Engineers' Assn.

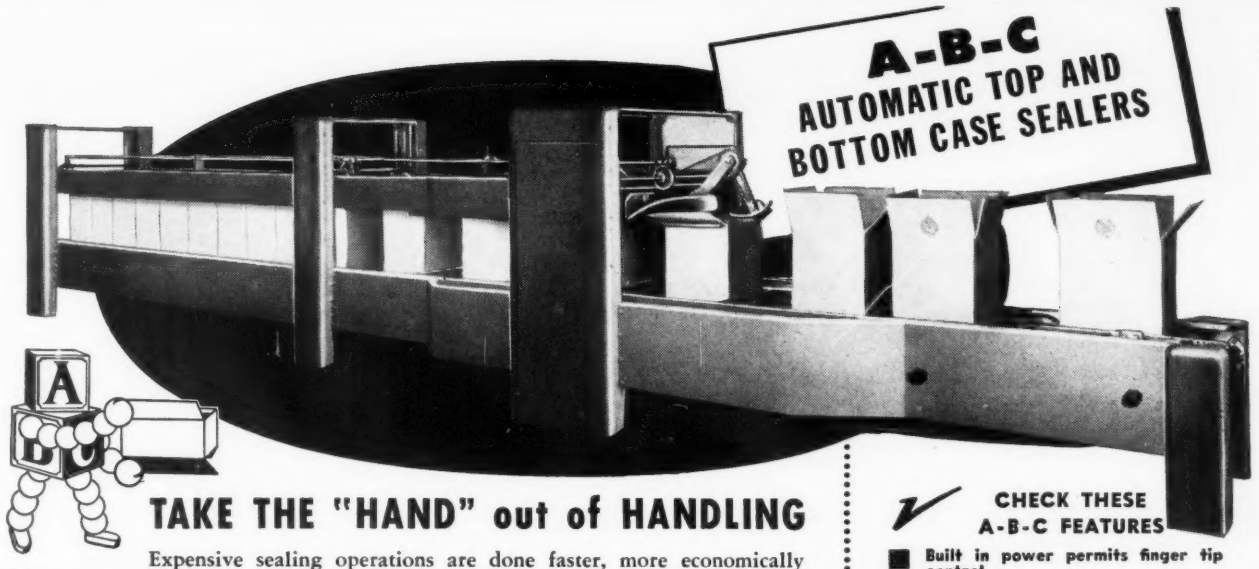
J. P. Novak

The Dixie Cup Co. (Canada), Ltd., has announced plans for the erection of a new manufacturing plant at Brampton, Ont. Scheduled for completion within a year, the new plant will have a total area of 50,000 sq. ft. and is said to have been designed especially for the manufacture of paper cups and containers. The new Canadian plant is part of a company-wide expansion program.

A. H. Burr has been appointed packaging engineer in the manufacturing division of **Smith, Kline & French Laboratories,** Philadelphia.

The board of directors of **Marathon Corp.,** Menasha, Wis., has elected **Noel E. Keeler** vice president in charge of finance and accounting. Mr. Keeler was with Sylvania Electric Products, Inc., before going to Marathon.

George Carl Ferver, vice president in charge of manufacturing of the Package Machinery Co., died Aug. 6 at his home in East Longmeadow, Mass. Born July 16, 1901, Mr. Ferver became associated with Package Machinery Co. in 1939 as assistant to the treasurer. He was elected vice president in 1945.



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Expensive sealing operations are done faster, more economically with the streamlined A-B-C Top and Bottom Case Sealer. A recent installation in one plant saved $4000 the first year. Cases are sealed directly from the production line at speeds up to 60 cases per minute. It's all automatic. No operators required. Top inner flaps are tucked as bottom outer flaps are opened without disturbing contents of case. Glue is applied both top and bottom and outer flaps folded in place simultaneously. Compression unit with individual spring rollers applies even pressure to complete the sealing job. Unit can seal top flaps only or bottom flaps only. A-B-C specializes in building packaging machinery exclusively. Let an A-B-C specialist help solve your packaging problems. Write A-B-C PACKAGING MACHINE CORP., Dept. M5, Moberly, Mo.

CHECK THESE A-B-C FEATURES

- Built in power permits finger tip control
- Simple, sturdy construction for minimum down time . . . low maintenance cost
- Adjustable to wide range of case sizes by pressing a button
- Glue applicator and compression unit supported at 4 points for even pressure
- All main drives ball bearing equipped—geared head motors

A-B-C PACKAGING MACHINE CORP.
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OTHER A-B-C PRODUCTS
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Hand Gluer • Glass Container Case Packer

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The speedy delivery of Plasma is ever of paramount importance. Cleveland Container Packages provide the essentials that ensure safe delivery. Maximum protection en route . . . insulation against shock . . . elimination of vibration.

Designed both for eye appeal and minimum weight.

Feature Points:

Spirally wound black leatherette external cover. Two spirally wound liners with corrugated insulation. Lock-in construction. Deep cover lid.

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• All-Fibre Cans • Combination Metal and Paper Cans
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• Plastic and Combination Paper and Plastic Items
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PRODUCTION PLANTS also at Plymouth, Wisc., Ogdensburg, N.Y., Chicago, Ill., Detroit, Mich., Jamesburg, N.J.
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SALES OFFICES: Room 5632, Grand Central Term. Bldg., New York 17, N.Y., also 647 Main St., Hartford, Conn.
CANADIAN PLANT: The Cleveland Container Canada, Ltd., Prescott, Ontario

For Your Information

Approximately 150 companies have already signed up for space at the **Third National Plastics Exposition.** Held under the sponsorship of **The Society of the Plastics Industry, Inc.,** the Exposition will be held at Grand Central Palace, New York, from Sept. 27 through Oct. 1. Representatives of foreign governments, state and federal government personnel, product design engineers, laboratory experts, architects, builders, as well as many other industrial users of plastics are planning to attend the Exposition, which is not open to the general public. Exhibits will feature the newer plastic materials and their processing.

The National Industrial Chemical Conference will be held in conjunction with the **National Chemical Exposition** at the Chicago Coliseum Oct. 12 to 16, inclusive. **The American Chemical Society** is sponsoring both the Conference and the Exposition. Program of the Conference is designed to be of particular help to chemical-consuming industries and small business firms. There will be a "technical bureau" on the Exposition floor which will be managed by **Dr. Ward V. Evans,** professor of chemistry at Loyola University. The bureau will give over-the-counter information to business men and manufacturers who have specific problems on product development and production involving chemical engineering.

Details of the **Second Annual Protective Packaging Competition** sponsored by the **Industrial Packaging Engineers Assn.** have been announced. The competition is being conducted in conjunction with the I.P.E.A.A.'s Exposition at the Hotel Sherman, Chicago, during the week of Oct. 4. Entries are to be grouped in five categories: corrugated or solid fibre boxes (Group 1), nailed wood boxes (Group 2), wirebound boxes (Group 3), general—combinations of any materials or reinforcements including metal containers, fibre drum, wooden barrels, bundles, crates and palletized articles (Group 4) and export packages (Group 5). Entries will be judged on factors of safety, economy, ingenuity, ease of handling and conformance to carrier requirements. Cash awards will be made for the first time to the winners of first, second and third prizes in each group, with the winner of first prize receiving $100 and a blue ribbon; second place, $50 and a red ribbon; third prize, $25. Chairmen of the judging committees for each group are: Group 1, **E. F. Dival, Corn Products Refining Co.;** Group 2, **T. A. Carlson, Forest Products Laboratory;** Group 3, **Don L. Quinn, Don L. Quinn Co.;** Group 4, **A. V. Grundy, Quartermaster Food & Container Institute;** Group 5, **F. W. Green,** packaging consultant.

A special feature of the I.P.E.A.A.'s exposition will be a packaging and materials handling "Short Course" conducted jointly by the University of Illinois Extension Division and the Association. Fee for attendance at all sessions by association members and exhibitors is $7.50; for non-members, $15.

A **Materials Handling and Packaging Conference** sponsored by the **Navy's Bureau of Supplies and Accounts** and the **Navy Industrial Assn.,** will be held for leading industrialists and military personnel at the Naval Supply Depot, Bayonne, N. J., on Sept. 28. Those interested in obtaining information on attendance at the Exhibit and Conference should write to the Navy Industrial Assn., 110 William St., New York.

The first national meeting of the **American Society for Testing Materials** ever to be held on the West Coast will be next year at the Fairmont Hotel, San Francisco, Oct. 10 to 14, 1949. Announcement has also been made of other A.S.T.M. meetings during 1949: the annual meeting in Atlantic City, June 27 to July 1, inclusive, at the Hotel Chalfonte-Haddon Hall; spring meeting and A.S.T.M. committee week in Chicago, Feb. 28 to Mar. 4, inclusive, at the Edgewater Beach Hotel. Three meetings sponsored by the A.S.T.M. districts during this fall are: Philadelphia, Franklin Institute, Oct. 13 and Nov. 10; Washington, Wardman Park Hotel, Oct. 14.

The eight midwest sections of the **American Society for Quality Control** will hold their **Third Midwest Quality Control Conference** at the Sherman Hotel in Chicago on Nov. 4 and 5. The conference is being sponsored by the Chicago Assn. of Commerce. Among the speakers will be **Dr. Carl E. Noble,** quality-control engineer for **Kimberly-Clark Corp.**

Six new three-color technical bulletins totaling 68 pages of data, diagrams, selection advice and practical application information on dial scales has been published by **The**

What's doing

Sept. 27–Oct. 1—**Philadelphia Gift Show,** Hotel Benjamin Franklin, Philadelphia.

Sept. 27–Oct. 1—**The Society of the Plastics Industry, Third National Plastics Exposition,** Grand Central Palace, New York.

Oct. 1–2—**National Paper Box Mfrs. Assn., Southern Division,** Grove Park Inn, Asheville, N. C.

Oct. 5–7—**Third Annual Industrial Packaging & Materials Handling Exposition,** Hotel Sherman, Chicago.

Oct. 5–7—**New England Materials Handling Exposition,** Mechanics Hall, Boston.

Oct. 11–14—**TAPPI** meeting on **Testing Methods,** Mellon Institute, Pittsburgh.

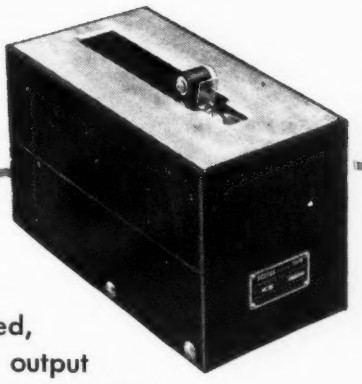
Oct. 12–13—**Packaging Machinery Mfrs. Institute,** annual meeting, Hotel Roosevelt, New York.

Oct. 12–16—**National Industrial Chemical Conference and Exposition,** sponsored by **The American Chemical Society,** Coliseum, Chicago.

Oct. 14–15—**Packaging Institute,** 10th annual forum, Hotel Commodore, New York.

Oct. 25–28—**TAPPI's Third Engineering Conference of the Pulp & Paper Industry,** Statler Hotel and Westinghouse Electric Co.'s Auditorium, Buffalo, N. Y.

Packaging costs cut in half with this simple box sealer



Taping these seat-cover boxes for shipment used to be a costly hand operation requiring two operators. 3M representatives recommended installation of this Type M semi-automatic box sealer. Now "SCOTCH" Cellulose Tape is applied in correct lengths simply by passing the carton across the face of the sealer. Result: only one operator is needed, tape consumption has been reduced, and production output per operator has doubled.

Perhaps there's an equally simple solution for *your* packaging problem. Why not let the 3M representative have a crack at it? Address R. C. MacFarland, Sales Department.

REG. U.S. PAT. OFF.

SCOTCH BRAND *Cellulose* **TAPE**

SEALS WITHOUT MOISTENING • TRANSPARENT AS GLASS

ANOTHER **3M** COMPANY PRODUCT

Made in U. S. A. by **MINNESOTA MINING & MFG. CO.** Saint Paul 6, Minn.

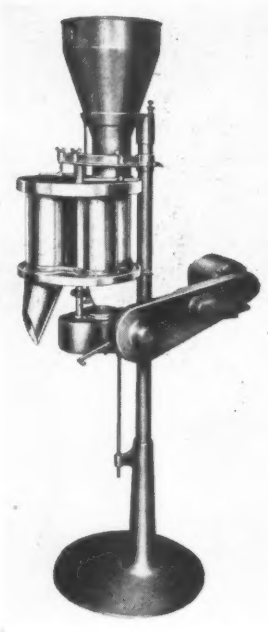
"SCOTCH" is the registered trademark for the more than 100 varieties of adhesive tapes made in U. S. A. by M. M. & M. Co.

4 WAY FLEXIBILITY IN FILLING

with the

FILLMASTER

vibratory filling machine



1. Trouble-free vibratory hopper improves weight accuracy in filling free and slow flowing products—powders, cereals, candies, popcorn, nuts, nutmeats, breadcrumbs, fresh or frozen peas, *ALL* grinds of coffee, etc.

2. Three floor models, gram fraction to 10 pounds.

3. Height adjustable for placing over conveyor.

4. *ANY* speed from 3 to 120 fills per minute.

Inexpensive Noiseless Safe Easily cleaned

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The unique construction of this container* assures that the cap stays *tightly sealed* regardless of the number of times it is opened and closed. The container is attractive, protective and is made in various lengths and diameters. It is perfect for safe packaging of ampules, vials, pencil leads, roll film, fountain pens and points and many other products.

We can apply your label to any surface of this container or print the container, one color ink on white or colored stock.

Adaptable to automatic filling and closing.

The box that adds shelf appeal while affording perfect protection.

Ask for samples and prices.

* Pat. Pending

NIEMAND BROS. Inc.

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RAvenswood 8-0909

For Your Information
(Continued)

Yale & Towne Mfg. Co. Counting scales, bench and portable scales, dormant platform and crane scales and weight-can scales are discussed separately in each bulletin. The series is available in a manual, copies of which may be obtained without charge by writing to R. F. Miller of Yale & Towne, 4530 Tacony St., Philadelphia.

W. & L. E. Gurley, Troy, N. Y., manufacturer of engineering and scientific instruments, has issued a revised catalog (Bulletin No. 1500) on its line of weights. Copies may be had on request to the firm.

The New Jersey Machine Corp., Hoboken, N. J., has issued a new 16-mm. sound film showing how its Label-Dri labeling machine applies thermoplastic labels to beer bottles. The film shows the installation and operation of the machine at the John F. Trommer, Inc., brewery where bottles are labeled at the rate of 300 per min. Prints of the film have been distributed to branch offices of the company in Chicago, Cincinnati and Los Angeles. These offices will make arrangements for a showing upon request.

"Durez Phenolic Molding Compounds," issued by **Durez Plastics & Chemicals, Inc.,** North Tonawanda, N. Y., contains interesting facts and data regarding the manufacture, use and methods of molding phenolic plastic resins. The 16-page booklet may be obtained by writing the firm.

The flexibility of decalcomanias as an advertising medium is summarized in **Palm, Fechteler & Co.'s** 16-page booklet, "PF Decals." According to the booklet, more than 100 industries currently use decals in a variety of ways. The profusely illustrated booklet is full of interesting applications of types of decals as displays on trucks, windows, counters, doors and as brand identification. Request copies from the firm, 220 W. 42nd St., New York.

Wood Conversion Co., St. Paul, Minn., manufacturer of wood fibre padding material, has published brochure No. 616, "Tufflex Protective Padding," which presents ways to protect merchandise in shipment and to reduce packaging costs. Copies may be obtained from the company.

The School of the Art Institute of Chicago is offering a course in package design this fall beginning Sept. 20. This evening course will be conducted twice a week by **Walter Stern,** packaging director of Barnes & Reinecke, Inc. It is planned to cover package layout, design, color, lettering and typography. Students will visit plants to study packaging and printing production methods.

The Plasteen Co., Chicago, has been named winner of the first **Junior Achievement Plastics Products Award** sponsored by **The Society of The Plastics Industry, Inc.** The company, sponsored by **The Visking Corp.,** is one of the 837 companies organized by Junior Achievement, Inc., to give teen-agers pre-business experience under the guidance of volunteers from industry. Made up of 14 high-school

The index of MODERN PACKAGING from September, 1947, to September, 1948, is now ready. Copies of **Volume 21 Index** are available free to any subscriber on written request to the Editorial Department.

Mack MOLDS FOR THE LEADERS—

TOOL HANDLES MOLDED BY MACK FOR HENRY DISSTON & SONS, INC. LEADING MANUFACTURERS OF TOOLS AND KNIVES

Insure your plastic molding jobs with MACK experience!

DESIGN

MOLD MAKING

MOLDING

Letting MACK figure it in plastics is good business, anytime. At MACK you receive the full benefit of experience that goes back to the early days of the plastics industry. If, on examination of your problem, we feel that the use of plastics is not the proper method, our engineers will so advise you. MACK means sound planning from choice of material and mold design to finishing. That's why a finished job from MACK will pay its way—every time!

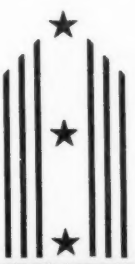
THREE PLANTS: WAYNE, NEW JERSEY; ARLINGTON, VERMONT; WATERLOO, P.Q., CANADA

Mack MOLDED EXCELLENCE

NATIONAL PLASTICS EXPOSITION

Everything in Plastics

ALL IN ONE PLACE
ALL AT ONE TIME



All the significant new plastics materials, machines, products——only at this great exposition can you see and compare them, in one place, at one time! Here the nation's top plastics experts, representing every phase of the industry, are gathered together, for you to consult on your own manufacturing, merchandising and sales problems. For ideas, for product data, for quality-boosting, cost-reducing information, for the whole current picture of plastics — *America's most available material* — the exposition is a *must* for all progressive executives.

★ ★ ★

For guest tickets to the show, write on your own business letterhead to The Society of the Plastics Industry, 295 Madison Ave., New York 17, N. Y.

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Sponsored by
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NEW YORK CITY
SEPT. 27th to OCT. 1st

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For paper board impregnation

102 YEARS

FOR DIP COATINGS
EMULSIFIED WAXES
COATING WAXES

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Meet Army and Navy specifications
WAXES FOR FUNGUS PROOFING
Our laboratory will welcome your problems

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Zophar Mills, Inc. has been known for its dependable service and uniformity of product since 1846.

ZOPHAR MILLS, Inc.
Established 1846
106-26th Street • Brooklyn 32, New York

Cans of Distinction

HERE are "customer-catching" cans—designed and made *exclusively* for your product. These lithographed containers combine easy brand identification with ideal product protection.

We also manufacture a complete line of round cans with stock designs for candies cakes and cookies.

Write today for our illustrated catalog.

"No other container protects like the can"

Empire Can Corp.

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For Your Information
(Continued)

students, the company produced and marketed—in their leisure time—7,890 plastic film babushkas, packaged in clear plastic envelopes and sealed with plastic tape. **Keen Plastics,** Chicago, and **Newest Novelties,** St. Louis, received honorable mentions. Judges of the competition were: **Donald S. McKenzie** of **General Electric Co., S. Jack Helsper** of **Mack Molding Co.** and **James F. O'Bryan** of **Bakelite Corp.**

New York University announces for the coming fall term 15 lectures by **Egmont Arens,** New York industrial designer, on The Industrial Designer & Merchandising: Product and Package Design. The course will be given Wednesday evenings, Sept. 29, 1948, to Jan. 19, 1949, from 8:10 to 9:55.

The **20th Annual Boston Conference on Distribution** will be held Oct. 25 and 26 at the Hotel Statler. Theme for this year's conference is "Distribution in This Changing World."

Material included in the new technical service bulletin currently offered by **Paisley Products, Inc.,** producers of adhesives, is of interest to new users of bottles for packaging. It deals with labeling methods, hand brushing, gumming machines and adhesive bases. Formulas of the adhesives are also given. Copies of the bulletin may be obtained by writing to sales offices at 630 W. 51st St., New York, or 1770 Canalport Ave., Chicago.

In the interest of reforestation and conservation, about 2,250,000 pine seedlings were planted in North and South Carolina by **West Virginia Pulp & Paper Co.** during the 1947–48 planting season, company officials announced.

The Rapids-Standard Co., Inc., announces availability of bulletin No. SJA-N48 describing and illustrating their Stevedore, Jr., power belt conveyor. Requests for copies may be sent to Dept. SB-242, Rapistan Bldg., Grand Rapids, Mich.

Behavior of fresh foods in consumer packages will be observed scientifically under an industrial research fellowship just established at **Rutgers University** by **Celanese Corp. of America.**

A grant of $5,000 has been established by the **National Assn. of Display Industries** for a display research program. **New York University's School of Retailing** has been named recipient of the grant and **Darrell A. Landrum,** formerly itinerant display director for the State of Virginia, has been named research associate to **Prof. Howard M. Cowee,** who will direct the program.

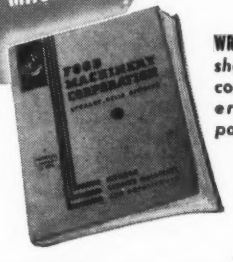
Package designers, members of the graphic arts, manufacturers, all who wish to understand the subject of color more completely, will find **"An Introduction to Color,"** by **Ralph M. Evans,** a valuable reference book. The subject as handled by Mr. Evans, who is head of the color control department at Eastman Kodak Co., includes the study of color from its physical, psychophysical and psychological aspects. The American publisher is John Wiley & Sons, Inc., 440 Fourth Ave., New York. Chapman & Hall, Ltd., London, is the English publisher. Price is $6.

Saves Shipping Room TIME! SPACE! COSTS!

FMC SHIPPING CASE SEALER

Complete machine, comprising sealing and compression unit. The two units are operated at different speeds, by separate motors.

FIGHT MOUNTING COSTS with FMC MODERN MACHINERY



WRITE FOR FMC CATALOG *showing largest, most complete line of modern processing and packing machinery.*

Automatic is right! The FMC Shipping Case Sealer seals the top and bottom flaps of shipping cases as they pass by in a continuous, fast-moving stream. Adhesive is applied to the inner flaps only, thus greatly reducing the overall dimensions of the machine.

Specially designed transferring device, which insures that all cases travel end-to-end through compression unit, reduces overall length so that minimum floor space is required.

Sealer is fully adjustable; will handle a wide range of case sizes at a speed of 450 to 1350 cases per hour.

K-404

FOOD MACHINERY CORPORATION

SPRAGUE-SELLS DIVISION • HOOPESTON, ILLINOIS

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Part of the Picture of Famous Packages

WALDRON MACHINES

For every step in your material processing, from raw stock to finished product, WALDRON can supply the right machine. The more beautiful and durable packaging materials are processed on WALDRON machines.

ANILINE PRINTING MACHINES	LAMINATING MACHINES
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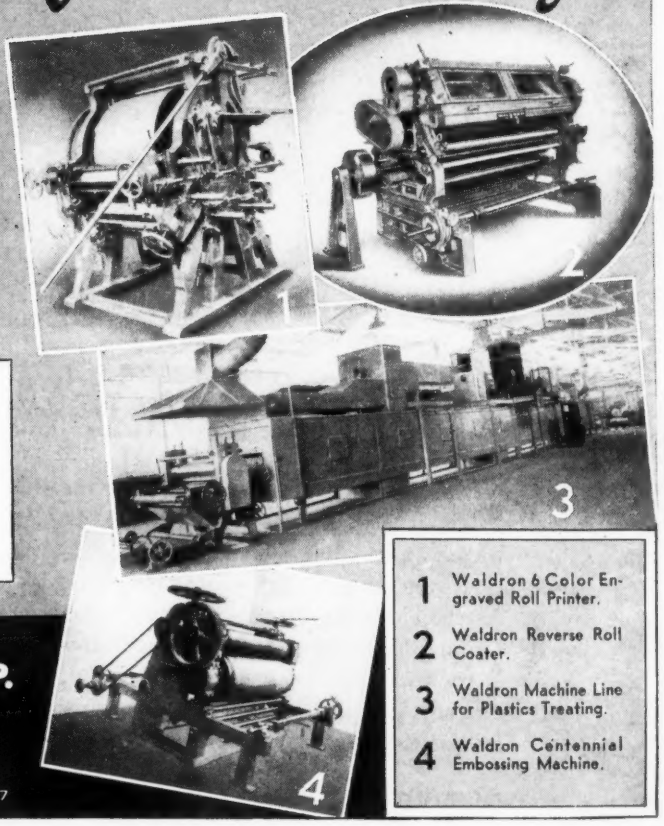
EMBOSSING MACHINES	WAXING MACHINES
GUMMING MACHINES	WINDING MACHINES
	SPECIALLY DESIGNED MACHINES



1 Waldron 6 Color Engraved Roll Printer.

2 Waldron Reverse Roll Coater.

3 Waldron Machine Line for Plastics Treating.

4 Waldron Centennial Embossing Machine.

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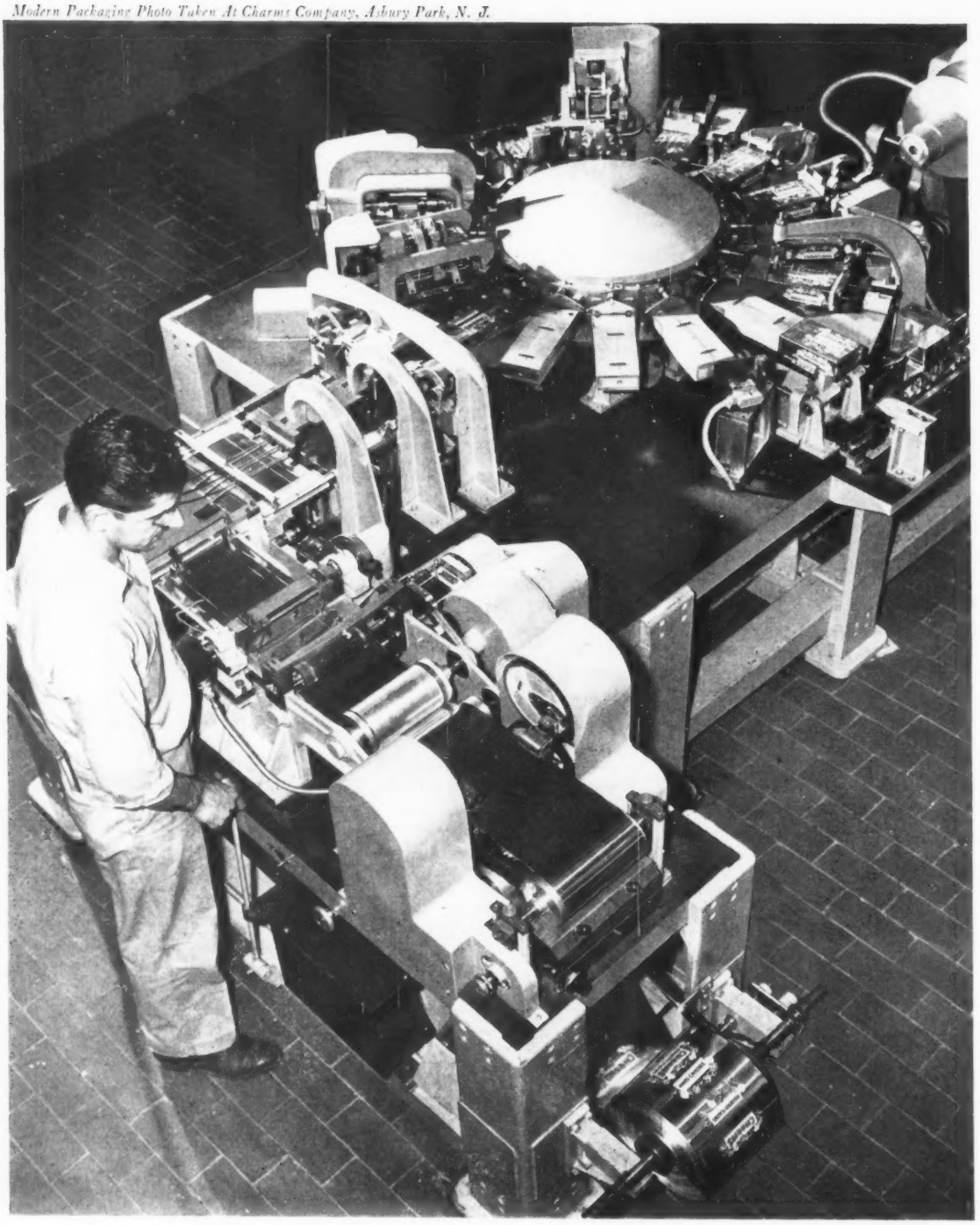
NEW BRUNSWICK, NEW JERSEY

BUILDERS OF QUALITY MACHINES SINCE 1827

Modern Packaging Photo Taken At Charms Company, Asbury Park, N. J.



Automatically FORMS AND CLOSES THE REYNOLDS PAK!

Vivid. Distinctive. Protective. Yes, the Reynolds Pak is all that . . . and economical, too. Because now there is a machine which automatically forms and closes the Reynolds Pak right in the packager's plant. As shown in the above close-up of the machine's forming section, the only packaging material required is compact roll of aluminum—gravured printed as desired. Complete information about this significant new machine available on request.

WRIGHT'S *Automatic Machinery Company*

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PIONEERS SINCE 1893 IN AUTOMATIC PACKAGING MACHINERY

TO PROTECT PERFECTLY AND TO DISPLAY *Dramatically*

REYNOLDS PAK

Formed from a single sheet of aluminum, crimp sealed on side and ends. Requires no liner or wrap. Reynolds Pak adds new cost-saving efficiency to unequalled protection and display value. It bars passage of moisture vapors, light, air, odors. Completely non-absorbent...liquid tight. Cuts freezing time ⅓ to ½. Gives your product the self-selling magic of extra brilliance and richer color. Write for details. Reynolds Metals Company, Richmond 19, Va.

REYNOLDS METALS

Reynolds Pioneering made Aluminum Competitive... *take advantage of it.*

Cady-Test Instruments

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PACKAGING MATERIALS

Bursting Strength Tester . . . makes the "Cady" or Mullen or Pop test. Has uniform 12 second cycle, uniform hydraulic pressure, electric motor driven. Registers Bursting Pressure of boards and heavy papers in lbs. per square inch. Area under test always visible; non-slip clamp prevents creeping. Available with various pressure gauges. Write for data.

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Cady Scales show basis weights for papers and tissues; Paper scales register 1000 sheet count weight, Tissue Scales show 480 or 500 sheet count weight, also graduated in kilograms.

Write for complete information—Literature and Prices

E. J. CADY & COMPANY

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WRAP-ADE.....

Continuous Sealer

SEALS FAST
SEALS TIGHT

THE Wrap-Ade Continuous Sealer heat seals as many as 75 thermoplastic coated bags per minute. Each bag receives a uniform, moistureproof heat seal. The unit is ideal for all bags packed on a conveyor system which automatically carries the filled bag into the sealing rollers.

Nearly five feet long to provide sufficient heat-dwell for perfect sealing, the Wrap-Ade Continuous Sealer may easily be raised or lowered to allow for bags of various sizes. A device is available to give the bag an extra fold before it is sealed.

Write today for complete specifications.

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U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Friction-Top Can, L. W. Hills (to Hills Bros. Coffee, Inc., San Francisco, Calif.). U. S. 2,443,984, June 22. In a container construction wherein a sheet metal wall part of the container is provided with an opening for access into the interior, a cover part formed of sheet metal having an annular off-set proportioned to have frictional engagement with the opening, said off-set portion serving to stiffen cover part against lateral bending.

Folding Head Support for Wrapping Machines, O. Sandberg (to Lynch Package Machinery Corp., Toledo, Ohio.). U. S. 2,443,992, June 22. In a folding head support for a wrapping machine of the type having a rotary folding head, a supporting frame in which said head is journalled, said frame being pivoted to wrapping machine and capable of elevation to a position for gaining access to that portion of machine under the folding head, a drive gear for rotating folding head, folding head having a gear normally meshing therewith with means for locking last gear against rotation.

Method and Apparatus for Serving Tacky Tape, T. H. Krueger (to Better Packages, Inc., a corporation of New York). U. S. 2,444,019, June 22. The method of serving sections from a roll of tacky material which consists in sticking the end of tacky material to a support by means of the adhesive quality of the material itself and moving support to draw material from roll.

Machine for Making Box Blanks, C. D. Knowlton and G. F. C. Burke (to Hoague-Sprague Corp., Lynn, Mass.). U. S. 2,444,050, June 29. In a blank-making machine having means for continuously combining a web of shell material and a web of cover material to form a web of blank material, the improvement which comprises means for intermittently feeding the combined web along a path substantially normal to the path of movement through the combining means, means between feeding means and combining means for forming a loop to facilitate the change in direction of movement of the web.

Flexible Dispensing Spout for Containers, R. F. Marken, Kansas City, Mo. U. S. 2,444,104, June 29. A container comprising a closed hollow body formed of sheet material and including a side wall; a section of sheet material secured to side wall and provided with slits setting off a portion of this section, this portion being swingable about a hinge to an angular position.

Paper Bottle Construction, F. D. Palmer (to Frank D. Palmer, Inc., a corporation of Illinois). U. S. 2,444,143, June 29. The method of closing a container comprising a tubular body having flaps at one end adapted to be folded into mutually overlying relation to close such container, which consists in delivering compressed air into the container, folding the flaps successively inwardly into closure-forming position against the air cushion with the container and effecting adhesive inter-attachment of the mutually engaging flap surfaces.

Can-Filling Machine. W. de Back (to Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.). U. S. 2,444,155, June 29. A can-filling machine with can-filling wheel rotating about a horizontal axis with a plurality of cylinders opening at its rim with means forming a chamber enclosing a rising part of said rim and traversed thereby and adapted to material to be packed in cans.

Insulated Container for Perishable Products, G. H. Freeman, Toronto, Ont., Canada. U. S. 2,444,344, June 29. A container for perishable products having an open-ended inner shell of cylindrical form and bottom of substantially hemispherical shape, inner shell being of constant diameter from the open end to hemispherical bottom and outer shell having side walls disposed in rectangular relationship; insulating material between inner shell and side walls and bottom of outer shell to reduce transference of heat between shells, handles attached and closure means provided.

Method of Producing Can Bodies, R. E. J. Nordquist (to American Can Co., New York, N. Y.). U. S. 2,444,463, July 6. The method of making tubular can bodies from a strip of sheet metal continuously moving in the direction of its longitudinal

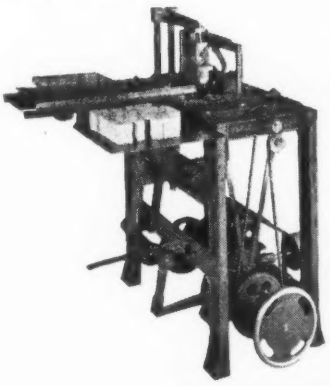
PACKAGING COSTS CAN BE CUT

Prices are up, but costs are even higher, and profit margins are shrinking.

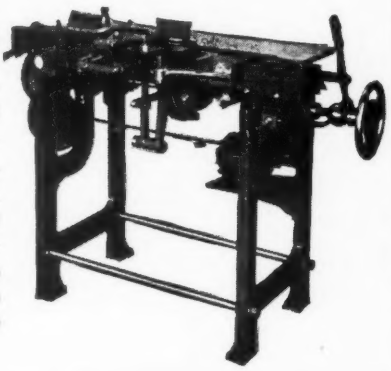
Packaging costs are one of the big items. With no labor or material cost relief in sight, the Food Processing Industry must modernize to salvage profits with lower packaging costs to meet intra-industry competition.

If you are still using hand methods to set up and close cartons, or if your packaging machines are old and obsolete, why not change to the modern and efficient packaging machinery built by Peters? Our many satisfied customers, all over the world, are proof of the efficiency of Peters packaging machines.

Send us samples of the various cartons you are now using. We will gladly send specific recommendations.



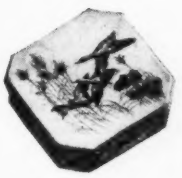
This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35–40 cartons per minute, requiring only one operator. After the cartons are set up, they drop onto a conveyor where they are carried to be filled. Machine can be made adjustable to set up several different size cartons.



This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35–40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made to close several different size cartons.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

HERE'S SALES MAGIC THAT WORKS!



New sales and repeat sales will materialize with magical swiftness when you package in these delightfully lithographed and embossed English metal containers. They have the appearance of being hand-crafted and when filled with teas, candies, cookies, nuts, handkerchiefs, gloves, stationery and the like, make ideal gift items. Reusable in many ways, they are proven creators of impulse sales.

These magic sales-makers are available in 28 stock designs and numerous sizes. Exclusive designs are available on volume orders. They are exceptionally low in cost despite their extreme attractiveness and fine workmanship.

Complete details furnished on request.

From top to bottom: French Enamel, Garden Barrel, Ducks Delft, Blossoms

Fancy Container Division

I. D. COMPANY

150 Spring Street • New York 12, N. Y.

PRE-*REGISTER*
COLOR PLATES WITH

OPTI-CHEK

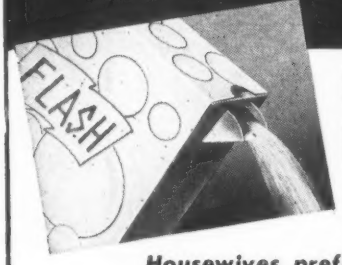
The simple fool-proof operation of the OPTI-CHEK will cut your registration time in half and eliminate idle presses . . . for color registering is done *off* the press and once your plates are in printing position the job is ready to run with no further adjustments necessary. Two OPTI-CHEK models are available—Model F for use with flat-bed presses and Model R for use with rotary presses.

ALSO SEE US FOR the very latest Cottrell-Heinrich press for printing in aniline, gravure or letterpress . . . in any order or combination.

H. H. HEINRICH CO.
200 VARICK STREET
NEW YORK 14, N. Y.

Write for folder on either Model OPTI-CHEK or for further information on the Cottrell-Heinrich Press.

FOR BETTER PACKAGING
of Free-Flowing Granular Products



Use Aluminum Pouring Spouts...
SEAL-SPOUTS

Housewives prefer them. Why?

- **Packages are easier to open — easier to use — easier to tightly close.**
- **Pouring spouts protect package contents against dirt and contamination.**
- **They cut down product waste in the kitchen.**

Adding "SEAL-SPOUTS*" is a simple, speedy process. They are automatically inserted in the production line—without making a hole in the package.

*T.M. Reg. U.S. Pat. Off.

Send for new descriptive FOLDER

CORP.
SEAL-SPOUT CORPORATION
363 Jelliff Ave., Newark 8, N. J.

U.S. Patents Digest
(Continued)

axis, strip being of a width of the circumferential dimension of a can body and of a length to form a plurality of can bodies.

Method and Machine for Making Can Bodies, J. F. Peters (to American Can Co,. New York, N. Y.). U. S. 2,444,465, July 6. The method of making tubular can bodies from a strip of sheet metal moving in the direction of its longitudinal axis, which comprises cutting a plurality of spaced aligned slits through the continuously moving strip on a line transverse to the longitudinal axis of strip to leave aligned uncut portions at ends of the line at opposite margins of strip.

Lipstick Container, D. A. Seaver (to Scovill Mfg. Co., Waterbury, Conn.). U. S. 2,444,375, 2,444,376 and 2,444,377, June 29 A cosmetic holder with an outer casing, an inner tubular member rotatable in said casing having a longitudinal slot and equipped with a carrier cup for receiving a cosmetic material.

Box-Sealing Machine, C. Christiansen (to Rotary Machine Co., Inc., Lynn, Mass.). U. S. 2,444,496, July 6. A device for sealing under high pressure the folded glued flaps of box blanks by means of spaced pressure-resisting members, with a reciprocally carriage movable between members and having a rotary press mounted on carriage.

Hollow-Walled Carton Structure, J. D. Clarke (to Morris Paper Mills, Chicago, Ill.). U. S. 2,444,497, July 6. A box comprising a bottom panel, hollow side wall provided by panels forming inner and outer spaced-apart wall sections connected by a top spacer section, all sections having extending portions providing hollow partial end-wall connected by top spacer area.

Head-Spacing Apparatus for Container-Closing Machines, W. C. Fromer (to Crown Can Co., Philadelphia, Pa.). U. S. 2,444,502, July 6. Supporting means for a filled and open-topped container and means to engage container contents to force them downwardly into container and to rotate with respect to container to cut off any contents which overhang container edge.

Carton-Assembling Machine, L. E. LaBombard (to International Paper Box Machine Co., Nashua, N. H.). U. S. 2,444,515, July 6. A machine for assembling containers comprising means for supporting tubular body of container in open position, means for supporting locking ring and closure member at base of body extensions, means for spacing closure member from locking ring and folding body extensions on locking ring.

Easy-Opening Metal Container, J .Coyle (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,444,591, July 6. A metal container having upper edge bent outwardly and thence downwardly in spaced relation to body to provide an annular channel encircling body, cover having a portion extending over body and frictionally engaging body and a pry-off lever disposed along body wall to facilitate opening.

Multiple Fabrication Method and Apparatus for Liquid-Tight Envelope Bags, H. F. Waters, New York, N. Y. U. S. 2,444,685, July 6. The method of forming flat-folded envelope pouches made from a web of plural-ply thermoplastic-faced envelope material over a plate to define two parallel rows of folded-over sections having free edges adjacently spaced; intermittently advancing the bi-folded web to a heat-sealing station and applying a series of spaced transverse heat seals, forming a continuous series of pairs of bag envelopes having a common continuous side.

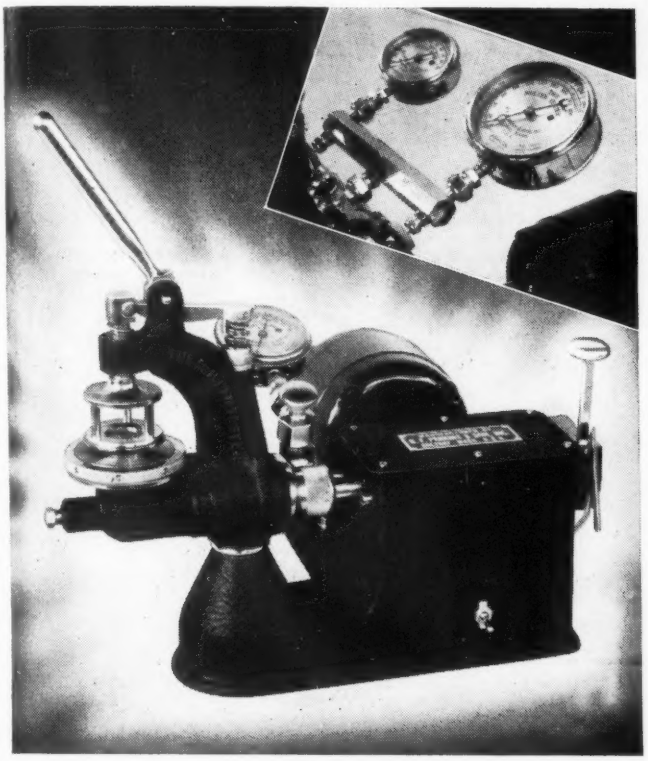
Display Package, E. C. Mulnix, Lake Bluff, Ill. U. S. 2,444,709, July 6. An enclosure comprising a backing sheet; side flaps foldable first upwardly to form side walls and then inwardly to form side ledges of the tops thereof; a securing flap at each end of backing sheet, foldable first upwardly to form end walls and then inwardly to form end ledges at the tops thereof in cooperative alignment with side ledges; a T-head at each end foldable in parallel alignment with each end wall in locked position by tabs.

End Closure for Tubular Containers, B. Bogoslowsky, Jackson Heights, N. Y. U. S. 2,444,722, July 6. An end closure for a container having a tubular body portion, said closure having a plurality of spaced shoulder portions extending inwardly from body portion to center and alternating with a plurality of spaced radial pleats extending outwardly from center thereof, central portion of pleats containing all of the end edges of tubular blank, being flattened and heat sealed in disk form.

Bag and Process of Making the Same, H. F. Waters, New York. N. Y. U. S. 2,444,762, July 6. A bag of the automatically opening bottom type which has in combination a tube of

Mullen Test

Recognized the world over as standard bursting test



Motor-Driven Model C Mullen Tester

Tests materials not exceeding .025" in thickness and a bursting strength of 200 pounds. Gauge capacities 30, 60, 100, 120, 160 and 200 pounds per square inch. Note two gauge-mounting by use of manifold for testing materials of widely different strengths.

The Mullen Tester operates on the hydraulic principle—bursting strengths are determined irrespective of any other factor. Conforms to ASTM and TAPPI standards.

Send for booklet describing complete line of Perkins Testers.

B. F. PERKINS & SON, Inc.

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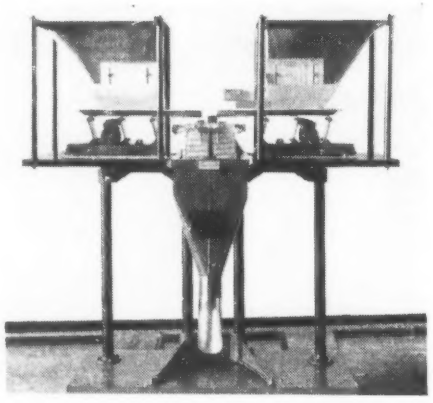

Model BT 2 WEIGH RIGHT scale filler with 1B vibrator feeders; table mount bag handling construction; 20 to 35 or more per minute.

The machine illustrated applies a novel arrangement of bulk fill with finish dribble for mixed products. A specific application is with mixed shell nuts where the bulk is filled on the right and the small nuts dribbled from the supply hopper on the left for close tolerances. Guarantees smaller per cent of error and more profitable high speed operation. Model BT 2 for 1 lb cellophane bags of assorted shell nuts and the BT 5 for 5 lb volumes. Various model types to meet exacting requirements including proportional batches of dry materials.

Full details on this unit as well as other related WEIGH RIGHT packaging machines in Catalog No. 48.

WEIGH RIGHT Packaging Machinery

WEIGH RIGHT AUTOMATIC SCALE COMPANY
JOLIET • ILLINOIS • U. S. A.

U.S. Patents Digest
(Continued)

non-fusible sheet material folded longitudinally along a plurality of lines to form a pair of side panels and a pair of main panels connected to side panels, process of making the bag comprising providing a web of flexible non-fusible sheet material, applying a strip of fusible adhesive adjacent edges of web, bringing same face-to-face to form a tube with a pair of main panels.

Bottle Cap, R. Krasberg, Chicago, Ill. U. S. 2,444,779, July 6. A readily removable closure cap assembly adapted to seal a container having a peripheral bead opening with gripping member and a plurality of depending fingers, each of said fingers being formed with an intermediate inwardly directed portion adapted to underlie the bead of container being sealed and a resilient sealing member surrounded by fingers and adapted to seat on bead.

Frozen Food Container, C. R. Symmes (to H. P. Hood & Sons, Inc., Charleston, Mass.). U. S. 2,444,861, July 6. A frozen food container comprising a cylindrical casing having only one end margin turned inwardly to form a ledge, a stiff bottom supported by the ledge throughout substantially the entire circumference thereof and being movable upwardly through container in response to upward pressure on its under side and a cylindrical liner resting on bottom and slidable endwise in container, liner having sufficient longitudinal rigidity to be pushed upwardly by said bottom without collapsing.

Bag, J. Johnsson (to Billeruds Aktiebolag, Saffle, Sweden). U. S. 2,444,891, July 6. In a bag structure of a multi-ply paper bag sealed at both ends, a filling valve in one corner of bag formed by folding in a portion of corner, a filling tube attached to filling valve, said tube extending beyond filling valve and stiffening insert attached to top wall of filling tube.

Sealed Box, W. A. Ringler (to The Gardner-Richardson Co., Middletown, Ohio). U. S. 2,444,895, July 6. A knock-down one-piece carton capable of being sealed at an end by a cast body of initially liquid sealing substance, said carton comprising four enclosing body walls in articulation and a glue flap articulated to one body wall, said glue flap being adhesively secured to body wall at opposite side.

Closure, G. B. Cooke (to Crown Cork & Seal Co., Inc.). U. S. 2,444,978, July 13. A container closure having a flexible, resilient sealing liner comprising a compressible, sealing layer comprising a water-insoluble, glue-acid reaction product having homogeneously dispersed throughout minute bubbles of a gas sealed in the layer, said layer being deposited from an aqueous liquid containing a water-soluble, glue-acid product, an insolubilizing agent, a plasticizer and minute bubbles of a dispersed gas.

Wedge-Shaped Dispensing Container for Powdery Substances, N. D. Glessen, Lakewood, Ohio. U. S. 2,444,987, July 13. A container comprising a generally rectangular bottom wall, a pair of generally upright side walls with downwardly and forwardly inclined top edges, a rectangular rear wall and a downwardly and rearwardly inclined inner portion, rear end edges being provided with inturned wings clamped between inner and outer portions of rear wall.

Pivoted Closure for Collapsible Tubes, C. Laing, Chicago, Ill. U. S. 2,444,995, July 13. A closure with spout, resilient sleeve adapted to be fitted on and secured to spout, cap adapted to close end of spout and arms extending from cap in opposed relation to each other and pivotally engaging sleeve.

Combined Handle and Closure Means for Flexible Receptacles, E. Lebenhart, New York, N. Y. U. S. 2,444,996, July 13. A receptacle having expansible and contractible mouth portion, said receptacle comprising a rigid handle provided with arms connected to one side of receptacle near its mouth, arms of handle being slidingly connected with opposite side of receptacle at points beneath mouth portion.

Sealed Slide Container, G. A. Moore (to National Biscuit Co., New York, N. Y.). U. S. 2,445,034, July 13. A package comprising a tray having a bottom, two sides and open top, an inturned flap at one end of each side, each flap having a cut therein to provide a latch and end panel connected to end of bottom adjacent flaps and forming an end of the tray; sealed wrapper encloses the tray and a tear line is associated with the wrapper adjacent end panel of tray.

Shipping Package, W. D. Poole (to Bethlehem Steel Co., a corporation of Pennsylvania). U. S. 2,445,152, July 13. An article of manufacture comprising two oppositely disposed pans arranged with their outer edges adjacent to each other to define a space, steel sheets contained within space defined by pans, sealing

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4 to 6 COLOR
ROTARY PRESS
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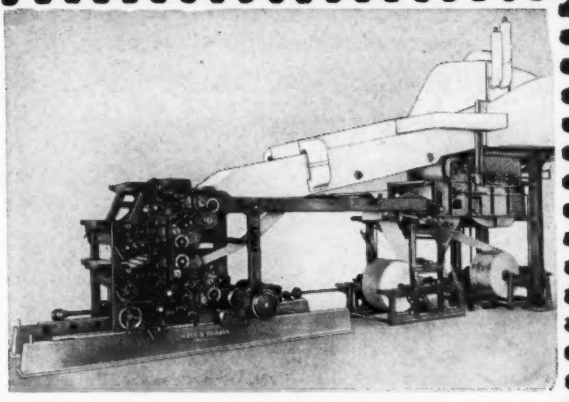

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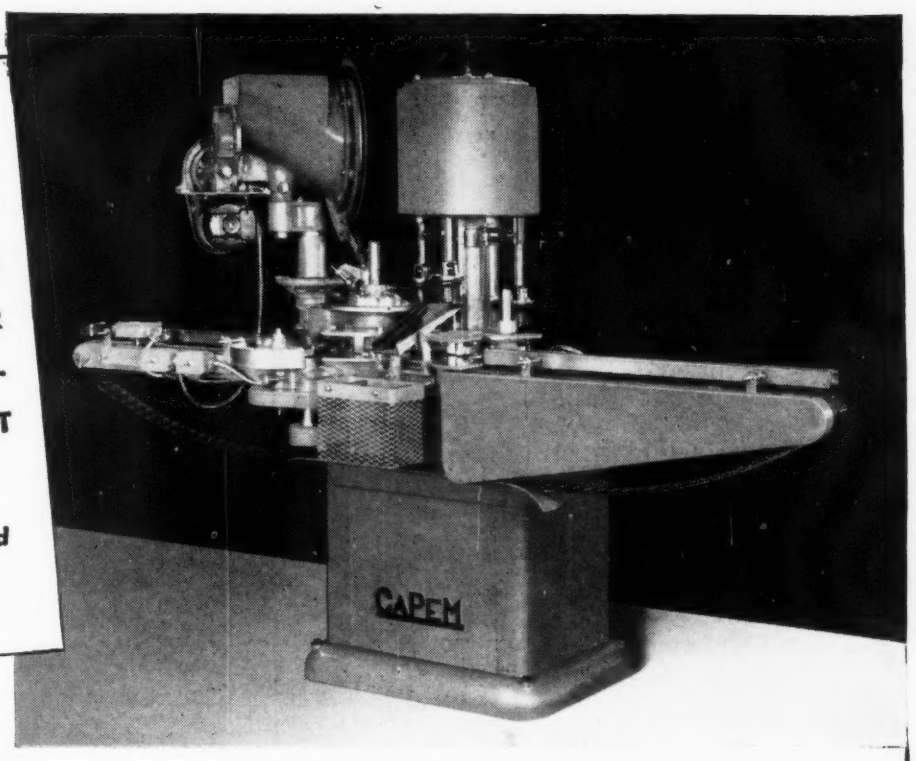

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BEDFORD, OHIO

U.S. Patents Digest
(Continued)

strip lapping said edges to form a substantially moistureproof container and an insert atmosphere within container formed by pans and sealing strip.

Web Cutter, B. A. Hannewald and H. D. Reimer (to Bemis Bro. Bag Co., St. Louis, Mo.). U. S. 2,445,174, July 13. A rotary web cutter adapted to sever a traveling web into lengths, comprising rotary knife carrier having a plurality of axially spaced transverse bearings therein, a cam follower rod reciprocable in each bearing, one end of each rod secured to a knife.

Machine for Tightening Caps on Containers, J. Hoh (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,445,270, July 13. A machine for tightening caps on containers, comprising a support for container, pusher plate, means for holding pusher plate spaced above support with plate positioned over container and cap loosely seated on container; vertical cap-tightening spindle mounted over plate with means for rotating spindle about its axis, driving connections between spindle and axis.

Insulated Container Closure, J. L. Hemp, Macomb, Ill. U. S. 2,445,325, July 20. A closure for containers having a neck and comprising a circular rubber ring having a peripheral outer wall and central opening therethrough, a plug of insulating material in opening having a downwardly projecting annular bulge engaging ring; a stem passing through plates and plug and tightener threaded on it to draw plates together.

Bottle Closure, H. D. Gursky (to Curtin-Hebert Co., Inc., Gloversville, N. Y.). U. S. 2,445,396, July 20. A closure for locking attachment to a bottle having an externally threaded neck comprising outer and inner elements, the former consisting of an internally threaded cap for rotatable engagement with bottle threads and adapted for assembly within cap.

Box-Fastening Means, W. Trogman, Chicago, Ill. U. S. 2,445,412, July 20. A box comprising two interfitting sections with wall of one section providing a recessed area, wall of other section a slotted portion providing a yieldable tab and means for latching box sections in interfitting relation with other.

Shipping Container, A. Berke (to Victory Container Corp., New York, N. Y.). U. S. 2,445,467, July 20. A blank and a shipping container erectable therefrom having a rectangular median portion bordered by scoring to define the bottom wall of container, blank having a rectangular portion adjacent each side of median portion bordered by scorings to define both side walls.

Ampoule, M. L. Folkman, Shaker Heights, Ohio. U. S. 2,445,477, July 20. An ampoule comprising a tubular body, a mixing plunger at one end of body, movable thereinto, and comprising a puncturable plug, a stationary closure at the other end of body and a mixing plunger having a hollow portion forming a medicament container chamber.

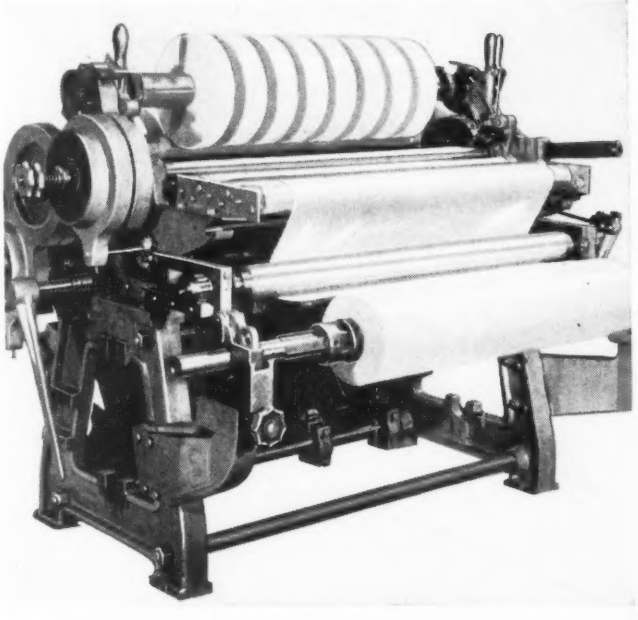
Method of Making Box-Like Containers, G. D. Wiepert (to The Merriam Mfg. Co., Durham, Conn.). U. S. 2,445,548, July 20. The method of forming a receptacle having a bottom, a pair of side walls and a pair of double-walled end closures comprising the steps of forming a blank from sheet metal; bevelling the opposite corners of each end-wall portion to form mitered edges, opposite ends bent up at right angles to form rectangular flaps.

Pressure-Sensitive Adhesive Sheet, E. M. Beavers (to The Resinous Products & Chemical Co., Philadelphia, Pa.). U. S. 2,445,553, July 20. A pressure-sensitive adhesive sheet that is flexible and will conform to a surface against which it is pressed and which comprises a flexible backing to which is securely anchored an insoluble resinous coating having a tacky surface and the remainder in an infusible state.

Closure and Container, J. W. Thomas (to Aluminum Co. of America, Pittsburgh, Pa.). U. S. 2,445,647, July 20. The combination of a container and closure for use in food processing operations involving heating the container after the closure is applied, container having an accurately concave outside sealing surface and outwardly disposed closure retaining means below.

Cake Make-Up Container, G. DeWayn Miles (to Colgate-Palmolive-Peet Co., Jersey City, N. J.). U. S. 2,445,685, July 20. A cake make-up container consisting of a cylindrical base cup and a cover only, base cup having a height less than one-fifth its diameter, a partition dividing base cup into two compartments, one of compartments being centrally located and adapted to hold a sponge applicator and other being larger and adapted to contain a cake of compressed make-up, case being a one-piece integral unit made of a fibreless organic plastic.

Camachine 24-7 for top quality rolls of CELLOPHANE



Camachine 24-7, Cellophane Slitter, is especially designed for fast production of accurately measured, uniformly rewound rolls of cellophane and similar materials. The delicacy of these materials and their lack of uniformity in thickness require extra care in slitting and rewinding. Top quality rolls produced by Camachine 24-7 mean more economical performance in later processing operations. Camachine 24-7 handles webs up to 50" in width at speeds up to 250 fpm, producing top quality rewound rolls up to 16" in diameter, and slitting strip as narrow as ½". Special slitter units can be furnished for cutting ¼" strip. Write for illustrated literature.

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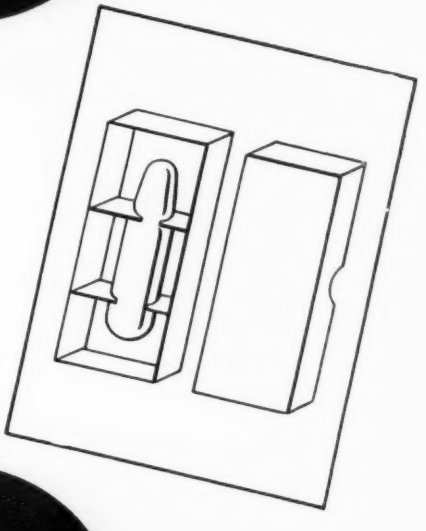

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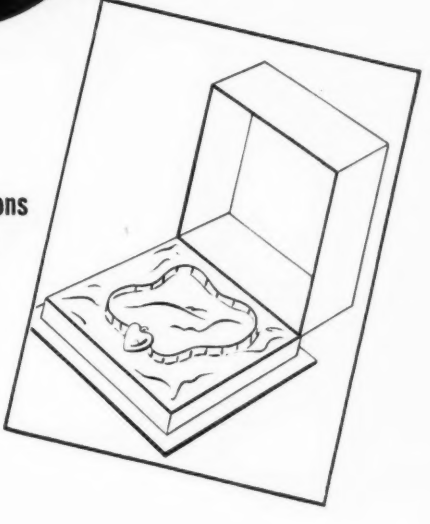

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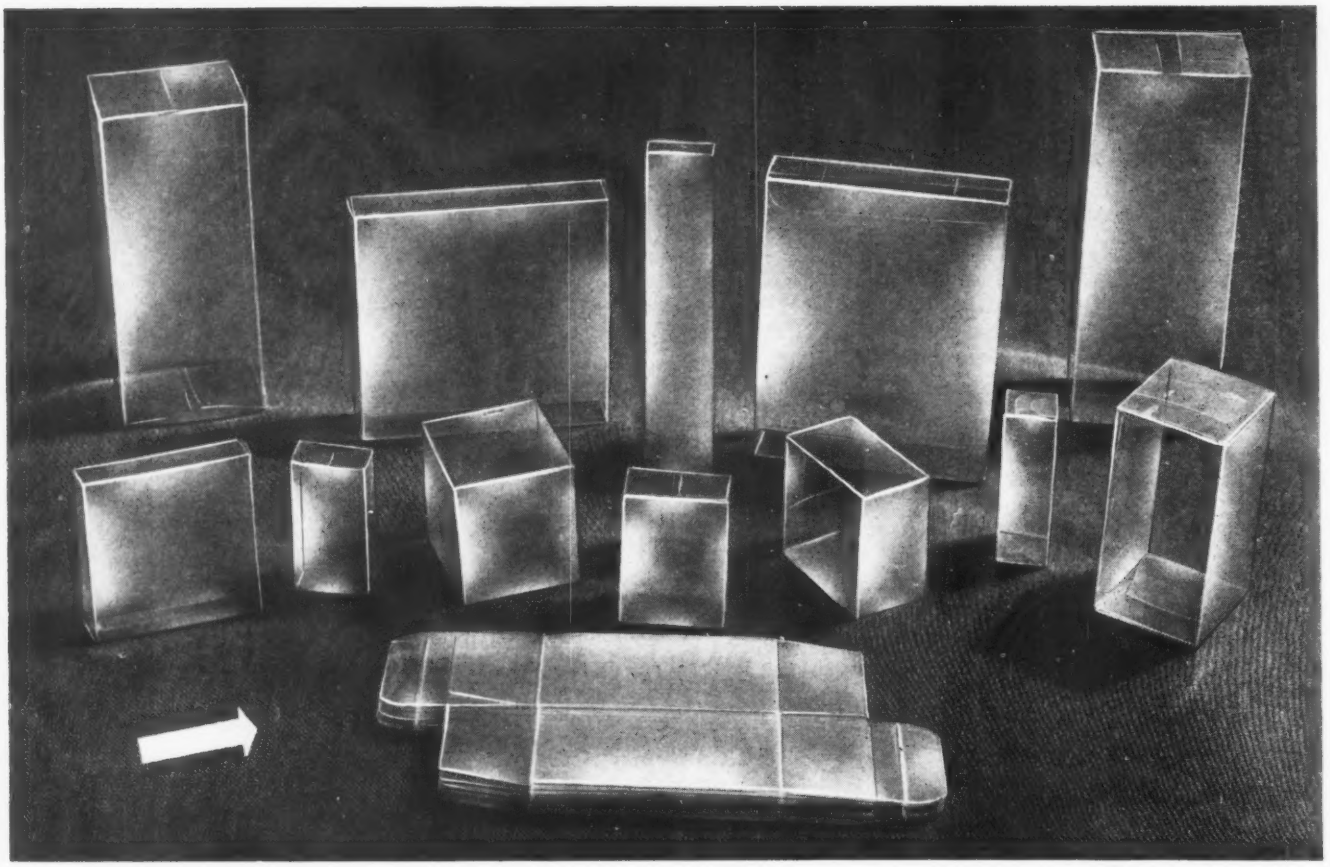
Safeguard Set-up Boxes



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that makes Plastafol* Cartons unlike *any* others you can buy *anywhere*

● Why do Plastafol Cartons *cost less* in small sizes than any other rigid plastic cartons?

Why do they ship and store in less space, at less cost, than any other comparable cartons?

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Simply because Plastafol Cartons are the ONLY plastic cartons that FOLD FLAT . . . that bend without cracking.

This means they can be mass produced by *us* for a price that will appeal to *you*. It means they come to you conveniently packed, 50 or so to the vertical inch . . . each one a single strong piece of window-clear, top-grade plastic, ready to be set up in seconds. Check up on Plastafol Cartons today!

*Trademark. The Plastafol carton is protected by present and pending patents.

✓ Not acetate, Plastafol Cartons are made from a superior, specially developed plastic with *foldable*, non-cracking qualities.

✓ Proved in use, Plastafol Cartons are already used in packaging everything from cosmetics to photographic supplies.

✓ Variety of designs. Ends may be tucked, glued—or locked for extra package security. Available in large runs.

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By Using BEMIS TITE-FIT TUBING

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REDUCE labor and material costs, because you:

ELIMINATE handling heavy bales of burlap.

ELIMINATE time required to open bales and remove bale coverings.

ELIMINATE time required to cut burlap into sheets.

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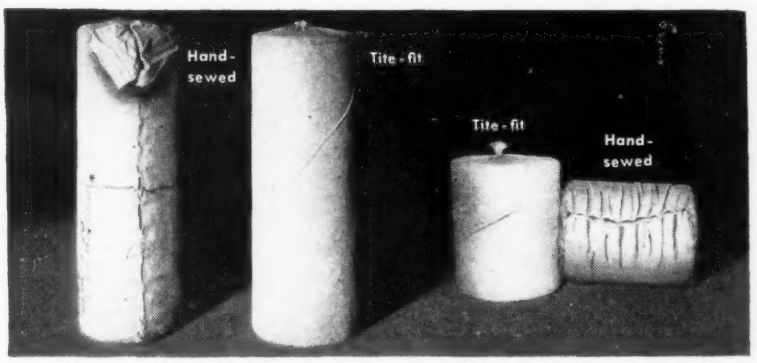
IMPROVE the appearance of your rolls.

YOUR CUSTOMERS

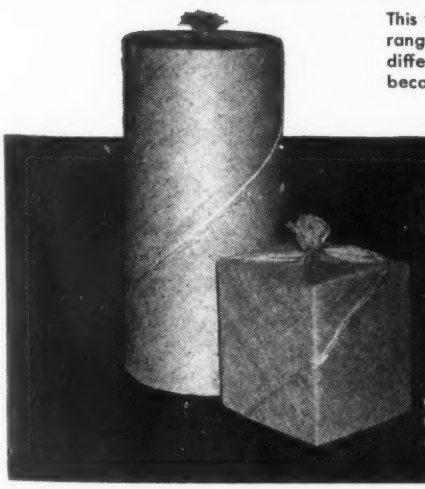
RECEIVE neat packages that are easy to handle, because there's a handy ear on each end.

SAVE TIME as TITE-FIT TUBING is easily and quickly removed. Just untwist wire tie at one end and slip tubing off.

ELIMINATE chance of cutting into contents and damaging goods, as no cutting of sewing thread or goods is necessary.

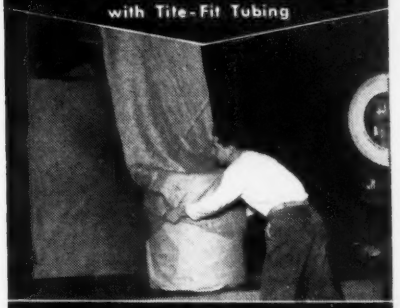


This versatile tubing fits almost any shape and a wide range of package sizes. One roll may cover many different diameters and lengths neatly, without waste because TITE-FIT TUBING has *stretch* in both directions.



5 QUICK STEPS

That's all . . . when you package with Tite-Fit Tubing



1. Pull tube well down over object, leaving an overage to cover bottom.

2. Turn package on side and fasten tube at bottom with a wire tie.

3. Turn package upright and use both hands to take up slack.

4. Fasten top with a wire tie close to object to assure tight fit.

5. Cut off the Tite-Fit Tubing about 3 inches above the wire tie.

BEMIS BRO. BAG CO.

Brooklyn 32, New York

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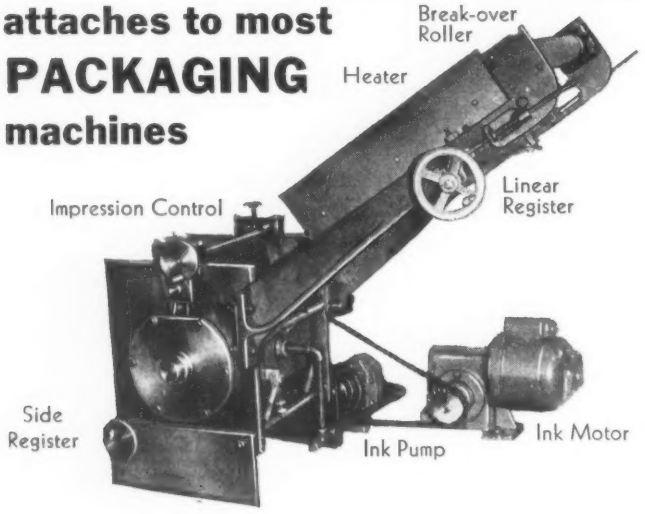
ROTOGRAVURE PRINTER
attaches to most
PACKAGING
machines



Here's a complete rotogravure printer which is small enough to be introduced into the web system of most bag making, candy, cigarette and food wrapping machines. It prints on all kinds of papers and foils up to 10" in width. Because of its miniature size, the price of this smooth operating unit is surprisingly low.

Write for literature and specifications today.

FRANCIS C. KILB CO.
243 Fulton Avenue Hempstead, L. I., N. Y.

Appetizing flour

(*Continued from page 143*) roon to intensify the colors of the cake and lettering. On each package, a red spot with the word "Fisher's" in white, shadowed in deep blue, provides emphasis to the trademark; this copyrighted lettering of the Fisher name, incidentally, which formerly appeared only on the pancake-mix package, has now been made standard for both products. The same shade of blue that outlines the Fisher name has been used as background for the new pancake-mix wrapper and for all side and back panel copy.

Several other innovations on the new packages are being tried by the company. One side of each package carries cross-product sales copy for another item in the Fisher packaged line. This cross selling shows the package of another product—Zoom breakfast cereal, for example—to speed identification on shelves.

Because both tops and bottoms of the new packages have the product name, the words "top" and "bottom" have been added so that, according to company officials, in any later advertising promotions involving the use of box tops, only the tops may be used. The top also carries a convenient spot for the retailer to mark his selling price and the warranty, "Quality guaranteed by Fisher's—or your money back."

Excellent use of the appeal recipes have to women is evidenced by the printing of six recipes on the cake-flour package wrapper. The pancake package carries the identification, "New Mix No. 27," which is the formula chosen recently by a group of women as their preference after testing a number of different formulas. The introduction of this new formula and the new packages is being announced currently by the company through a newspaper and radio advertising campaign.

CREDITS: *Wrapper, Ridgway Lithograph Co., Seattle, Wash. Cartons, Fibreboard Products, Inc., San Francisco.*

Packers frozen meats

(*Continued from page 112*) easily opened by the prospective purchaser and the contents examined without disturbing the protection of the inner cellophane wrap.

Hygrade Food Products Corp. has been outstanding in the development and merchandising of frozen packaged meat items. Among the products now being sold by Hygrade is a rectangular package with paperboard tray and two dividers, containing four square chopped beef patties overwrapped with cellophane and carrying a printed label inside. Last month Hygrade introduced its "Quick & Thrifty" frozen uncooked meat and vegetable combination dinners complete in one package, including seasoning in a cellophane packet. The partitioned package contains sufficient portions for two people of two kinds of vegetables and the meat. The vegetable items are individually wrapped in MSAT-type cellophane and placed in small triangular-shaped

Paper Package Pointers
FROM CYANAMID

WET-STRENGTH PAPER SAFEGUARDS THE ADVANTAGES OF PREPACKAGING

Consumers purchase many kinds of fresh produce prepackaged in sturdy wet-strength paper bags featuring the special mesh or cellophane window.

Without the quality of wet-strength, many of the advantages which accrue to the packer, shipper, retailer and buyer of certain prepackaged goods could be completely swept away. For frequently this quality protects the package in transit from source to consumer—and its lack anywhere along the way could prove very costly in terms of spoiled produce, not to mention the damaged good-will of both the retailer and his customer.

Wet-strength—*dependable* wet-strength—is particularly essential in the prepackaging of any perishable produce which must be packed, shipped or stored under conditions of high humidity—or which exudes moisture by its nature. Many types of fresh vegetables and fruits fall into this latter category, so that their containers must be able to withstand moisture from *within* as well as moisture from without. In other words, such containers must have wet-strength all the way through.

Prepackaging obviously can effect economies at all levels of food merchandising: economies in shipping and storage costs, economies in retail display space, and immeasurable economies to the housewife who can carry home prepackaged produce that is trimmed, cleaned and ready to use without waste. These are the economies which can be safeguarded for the prepackager who uses any of the various types of attractive paper bags and containers fashioned from paper or board which has been produced with Cyanamid's PAREZ* Resin 607. This melamine resin, which is added to the stock at the mill, produces strong, sturdy paper with dependable wet-strength. Cyanamid now supplies PAREZ Resin 607 to many of the country's leading paper mills, who in turn supply container manufacturers with a superior packaging material.

Your nearest paper supplier will be glad to advise and serve you—or we shall be glad to refer you to a convenient source of supply.

*Trade-mark of American Cyanamid Company covering its synthetic resins for use by the paper industry. The processes under which PAREZ is applied in the production of wet-strength paper are covered by U. S. Patents Nos. 2,291,079, 2,291,080 and 2,345,543 and U. S. Patent Application Serial No. 453,032.

Photo: Courtesy Union Bag & Paper Co.

AMERICAN Cyanamid COMPANY
INDUSTRIAL CHEMICALS DIVISION
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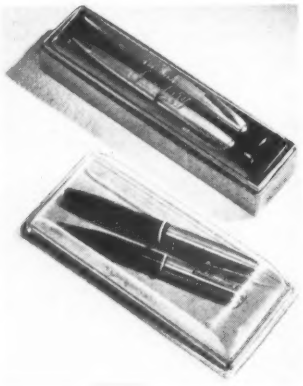
Acetate Display Boxes

SHOW SELL YOUR MERCHANDISE



The forceful selling power of these gleaming, drawn acetate display boxes will mean faster turnovers, larger profits. A crystal clear dome reveals and enhances the details of your product, yet keeps it unsoiled. Quick openings of various designs make it easy for customers and dealers to examine the merchandise without fumbling with complicated catches. Platforms that provide a variety of effects are available.

These sales compelling acetate display boxes and others of special design are adaptable for packaging many products. And because they are mass produced, they can be delivered in quantities.

Samples of your product forwarded with your inquiries, will save unnecessary delays in quoting.

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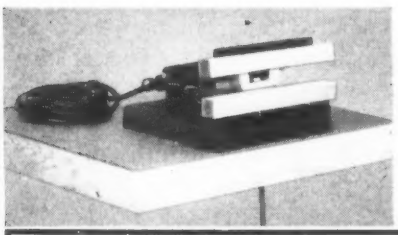
CONVERTERS and JOBBERS

Here's the Modern Way to Heat-Seal Plastic Film at Low Cost . . . .



AIR TIGHT
LIQUID TIGHT
MOISTURE TIGHT

With the Foot-Operated

CRIMPMASTER

Model "B" Heat Sealer

- For Extensive Sealing Operations
- Operates on 110 volt A.C. or D.C.
- Approved by Underwriters Laboratory

$59.50

RETAIL PRICE

CLEVELAND LATHE & MACHINE CO.

Leaders in Lower-Price Heat Sealing Equipment Since 1936

676 Broadway Cleveland 15, Ohio

paperboard trays which are then placed in opposite corners of the large rectangular tray with the meat—chops, chopped beef, beefsteak, liver or poultry—in the middle section. The whole package is overwrapped with cellophane. Trays are bleached manila-lined chipboard which are cold water waxed on both sides.

The frozen packaged meat field has witnessed considerable activity since the war among independent firms which do not have their own slaughtering facilities, but buy their meat in wholesale cuts and reduce them to consumer units.[3] On-Cor Food Products, Chicago, packs frozen ground beef patties and frozen beef steaks in printed cellophane (MSAT). Open ends of the gusseted cellophane envelopes are folded under, but not sealed. The packages, brightly printed in combinations of red, white and blue, play up the 2-minute cooling time in a "splash" patch on the front.

The On-Cor packages are placed in insulated boxes with dry ice for delivery to distributors. Present distribution is confined to the Chicago area. Ease of preparation and absence of waste are cited as reasons for the ready acceptance of the products by housewives. Since they are very compact, they may be stored in freezer compartments of home refrigerators.

A similar type of printed cellophane package is used for Chip Steaks, a special type of frozen meat item which first reached the market in 1937, but was curtailed during the war by lack of meat supplies. A patented form of frozen steak, made up of very thin layers, the steaks are made up and packaged in a number of cities under a license arrangement with U. S. Frozen Foods, Inc., Chicago. Widely used in hospitals, restaurants and other establishments where food is served, and sold at retail for use in the home, Chip steaks may become the first frozen meat product to achieve nation-wide distribution.

CREDITS: **Wilson & Co.**—*Paperboard container for hamburger patties, The Sealright Co., Inc., Fulton, N. Y.; aluminum foil container for swiss steak and gravy, Reynolds Metals Co., Richmond, Va.* **Swift & Co.**—*Waxed folding cartons, Sutherland Paper Co., Kalamazoo, Mich. On-Cor Food Products and Chip Steak cellophane packages, Milprint, Inc., Milwaukee.* **Hygrade Food Products Corp.**—*Cellophane, E. I. du Pont de Nemours and Co., Inc., Wilmington, Del.*

[3] See also "Wrap-Cartoned Steaks," p. 113, this issue.

Shipping container definitions

The "List of Definitions of Terms Relating to Shipping Containers and Related Items" has been approved by Committee D-10 of the American Society for Testing Materials through the medium of the Administrative Committee on Standards. All members of the committee voted affirmatively on the list and "it may be considered as accepted for publication as an A.S.T.M. Tentative List of Definitions," according to the Society. T. A. Carlson is chairman of Committee D-10; E. R. Stivers is secretary.

making a good impression...

Boxes, cartons, wraps, bags and labels printed with popular Driscoll Inks make a good impression wherever—and *whenever*—they are seen. For brilliant, smooth-flowing Driscoll Coverwell retains its original color and character long after leaving the pressroom. Driscoll Inks are available for all types of reproduction processes, for all printing surfaces. Hundreds of vibrant colors to choose from—each contributing to that important *good impression.*

DRISCOLL COVERWELL INKS FOR EVERY PRINTING PURPOSE

MARTIN DRISCOLL & CO.
610 FEDERAL STREET, CHICAGO 5, ILL.

BRANCH: 407 E. MICHIGAN ST., MILWAUKEE, WIS.

Affiliated Concern: Great Western Printing Ink Co., Portland, Ore.

Look to *Angell* for PRODUCTS IDENTIFICATION You'll Be Proud Of!

STARET JEWELRY
325 FRANKLIN ST.
CHICAGO, ILL.
A PRODUCT OF ELECTRO-ACOUSTIC PRODUCTS DIVISION OF THE
Magnavox
Co. INCORPORATED
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MEN'S WEAR
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IRONWORK FENCE WIREW
The DAVIS & SIEH
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EMBOSSED METAL LABELS, SEALS, NAME PLATES, TAGS, DECORATIONS
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1071 East Monument Ave., Dayton, Ohio
BRANCH OFFICES: New York, • Philadelphia • Chicago
Boston • Detroit • Cleveland • Cincinnati • St. Louis
Kansas City • San Antonio • Los Angeles • San Francisco
Angell also owns and operates the Products Identification
Division of the Stanley Manufacturing Co.

HERE'S HOW ANGELL CAN SOLVE YOUR PROBLEM

SIMPLY send us a rough sketch of what you need and tell us how it is to be used. ANGELL Artists will develop your ideas into a full color sketch . . . without obligation to you.

WE WILL submit design to you for approval, and recommend materials and processes to be used. If you have a definite design, ANGELL will show you how it can best be made.

MAIL THIS COUPON TODAY!

THE ANGELL MANUFACTURING CO.
1071 E. Monument Ave., Dayton, O.

☐ Please send free book showing hundreds of designs.
☐ Attached is rough sketch. Without obligation on our part, please submit design and price for ..... units.

NAME .....
FIRM .....
ADDRESS .....
CITY & STATE .....

for better packaging . . .
POLYTHENE
CLOSURES

Lumelite plug type, screw type with applicator, regular screw type (needs no liner) are recognized for these outstanding characteristics.

- Resilience assures tight fit
- Chemically inert
- Non-toxic
- Odorless
- Compatible with most products
- Almost no breakage
- Flexibility makes application easy

These polythene packaging innovations are custom molded to your specifications. In many cases are less expensive than other types of closures.

We have designed and produced many unusual closures for various companies. Perhaps we can do the same for your product. Write today outlining your problem.

LC LUMELITE CORPORATION
PAWLING, NEW YORK

Paris packaging exposition

Visitors from all over Europe and some from the United States are expected in Paris Oct. 1 to 10 for the second International Packaging Exhibition to be held

2ND PACKAGING EXHIBITION
PRINTING AND ALLIED TRADES EQUIPMENT EXHIBITION
3RD BOTTLING EQUIPMENT
1-10 OCTOBRE 1948
PARC DES EXPOSITIONS
PARIS
PORTE DE VERSAILLES
ADMINISTRATION . 40 RUE DU COLISEE PARIS 8E — TELEPHONE: ELYSEES 28-70

at the Parc des Expositions, Porte de Versailles, simultaneously with the Third Bottling Equipment Exhibition and the First Printing and Allied Trades Equipment Exhibition.

Among the exhibitors will be several hundred leading French and foreign manufacturers of all types of packaging supplies, machinery and equipment.

The Exposition points out the growing economic importance of modern methods of packaging to European manufacturers, growers, shippers, wholsalers, retailers, importers and exporters.

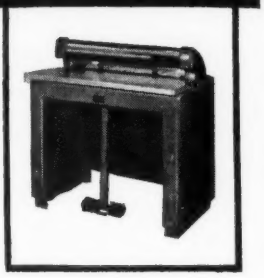
More than 50,000 visitors were tallied at the First International Packaging Exposition last year and all indications are that this year's activity will reach even larger proportions.

The machinery section will feature all the latest developments in automatic and semi-automatic machinery. A special display section will feature labels, display stands and all types of point-of-sale material.

International participation in the Exhibition is expected to increase in the following years and promoters of the activity "are anxious to see American firms send samples of their products as soon as the Marshall Plan will make France a good export market for them."

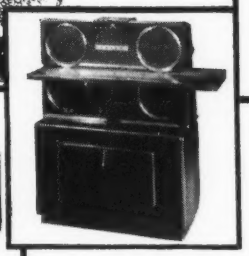
Information regarding all facilities of the Exhibition, tickets, reservations, etc., can be obtained through the "Salon de l'Emballage," 40 Rue du Colisee, Paris (8°).

Taber
SHEET PLASTIC FABRICATING MACHINES to

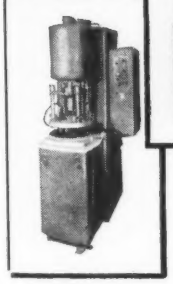


CREASING

FOLDING



BEADING



DRAWING

Taber machines are designed and engineered to give you all the features needed for rapid production — plus the precision required for repetitive uniformity.

Twenty-nine years' experience in this field — built into these machines — is your guarantee of the finest in plastic fabricating equipment to manufacture the following products from thermoplastic sheeting:

1. Square and rectangular plastic containers,
2. Seamless draw containers,
3. Beaded lap-joint cylinders,
4. Folded articles,
5. Special fabricated parts and shapes.

Write for this new literature with descriptions and illustrations of the equipment you need.

FOLDING - - DEEP DRAWING - - BEADING

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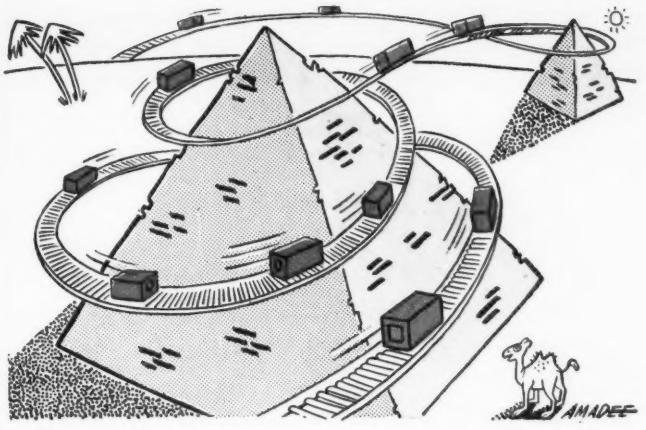
INSTRUMENT CORPORATION

119 GOUNDRY STREET · NORTH TONAWANDA, N. Y.



TOUGH ASSIGNMENTS

are ALVEY'S specialty...

an *"EXTRA"* that comes with

ALVEYORS*

packaging

the word for every conveyor need

"We've got to cut handling costs" exclaimed the company President"... and that means a tremendous increase in volume handled. Our plant is on three floors and our products are packed in everything from big crates to small bottles. The problem has about got us licked!"

That problem, with about a thousand variations of course, is met by Alvey experts every day... met successfully, too! Because wide experience in diversified industry has enabled Alvey-St. Louis to specialize in "tough-nut" problems for more than a generation. Alvey can "think through" on difficult assignments because Alvey specialists have "lived through" similar problems throughout industry.

*Trademark

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FOR BETTER PACKAGING!

PARTITIONS

THAT PROTECT AND
SAFEGUARD YOUR PRODUCTS

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IMMEDIATE ATTENTION
Given to Requests for Estimates

Prompt Deliveries Guaranteed

Reasonable Prices Assured

WRITE, PHONE, WIRE for QUOTATIONS on YOUR REQUIREMENTS

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Have your products
PACKED IN ENGLAND!

Cut down on Export costs! Send your products to England for packing by the well-established Trading Estate Packers. Packaging and light assembly work carried out efficiently at a fair price. Strictest supervision guarantees good work.

Distribution facilities available if required.

Find out more about the advantages of this packaging service. Write to:—

TRADING ESTATE PACKERS LTD

Ipswich Road, Trading Estate, Slough, Bucks, England

Bonds merchandise bags

By matching accurately a color sample of a special blue through pigmentation of raw pulp when converting it to finished paper, Bond Clothing Stores have been able to achieve in a single printing an economical color scheme for merchandise bags used in their new Fifth Avenue, New York, store. This was accomplished through close cooperation between the supplier of the bags and the laboratory and paper experts of the mill. The "white on blue" is effected by the imprinting of opaque white on the specially prepared blue stock while it is being converted into bags. Thus reverse printing and double impressions are eliminated. All the store's bags are carried out in this color scheme and identifying design—the popular "take-hold bag," the round-lip merchandise bag and "the bag of tomorrow," with square lip.

CREDIT: *Bags, Equitable Paper Bag Co., Long Island City, N. Y.*

Cosmetic season of reason

(*Continued from page 123*) budgets. Formerly, costs of production, including ingredients and packaging, were figured at 20 cents out of every dollar. Today some firms say they are lucky if they can keep these costs within 35 cents out of a dollar and some are known to have spent as high as 50 cents for production and packaging.

This is a difficult problem, particularly when keener competition does not permit corresponding rises in retail selling prices. Nevertheless, it is an ill wind that blows no good. The good reasoning made necessary by current conditions will unquestionably result in more ingenuity and perhaps better planning.

CREDITS: **Marie Earle**—*Wisp cream deodorant, transparent folding carton, Troth, Bright, Page, Inc., Paoli, Pa.* **Yardley**—*Lotus bottle, Kimble Glass Co., Div. of Owens-Illinois Glass Co., Toledo, Ohio.* **Queen Helene**—*"Lucky" bath crystal decanter, Hazel-Atlas Glass Co., Wheeling, W. Va.* **"Vaseline"**—*jars, Hazel Atlas Glass Co., Wheeling, W. Va.* **Parfums Weil Paris Co.**—*Evettes, ampoules, Kimble Glass Co., Div. of Owens-Illinois Glass Co., Toledo, Ohio; cartons, J. Makowsky Corp., New York.* **Dermetics**—*sleeves, Keystone Paper Box Co., Seattle, Wash.* **Djer-Kiss**—*foil wrapping, Hughes & Hoffman, New York; ribbon, Century Ribbon Mills, Inc., New York; silk-screen display, Louis Bressoud, New York.* **Prince Matchabelli**—*face powder box wraps, C. H. Forsman Co., New York; box, F. N. Burt Co., Buffalo, N. Y.* **Tussy**—*bottles, Swindell Bros., Inc., Baltimore, Md.; bottle design, Utley's, Forest Hills N. Y.; brass cap, Richford Corp., New York; plastic closures, Mack Molding Co., Wayne, N. J.; boxes, N. L. Tarshis, Brooklyn; cartons, International Folding Box Co., North Bergen, N. J.; lace, Connecticut Lace Works, Inc., New York.* **Tussy**—*"Ginger*

THE NATION'S TABLES TELL THE STORY...

GOOD IMPRESSIONS START with *MOSSTYPES*

SMART restaurateurs know that crisp, clean, distinctively printed paper place mats make a good impression on patrons. On the other hand, smart printers of mats and other paper specialties know that good impressions depend largely on the use of MOSSTYPES ... the *pre-madeready* Rubber Printing Plates. Why not try MOSSTYPES on *your* next job?

A few examples of the hundreds of paper place mat designs printed by the Frank M. Sayford Co., Brooklyn, New York, from MOSSTYPE RUBBER PRINTING PLATES

MOSSTYPE CORPORATION
33 Flatbush Avenue
Brooklyn 17, New York

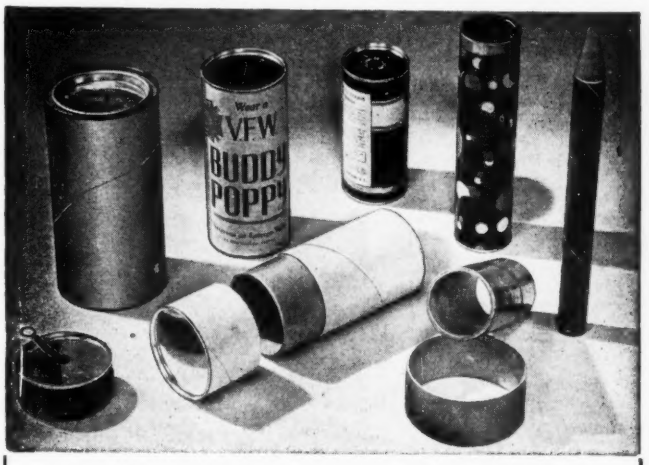
pre-madeready MOLDED RUBBER PLATES • DESIGN ROLLERS

Try MOSSTYPE for
* Engineered BLACK-and-WHITE Art
* "Full-Depth" Pattern ENGRAVINGS
* Precision PLATE MOLDING and MOUNTING

3

THIRD ANNUAL INDUSTRIAL PACKAGING and MATERIALS HANDLING EXPOSITION & FORUM

OCT. 5, 6, 7, '48
HOTEL SHERMAN
CHICAGO

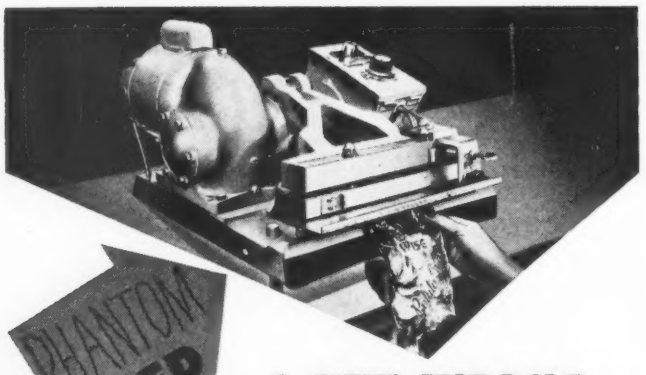


ROUND TUBES AND PACKAGES
Available Now!

PACKARD offers spiral-wound round tubes and containers in all conceivable lengths and diameters—drum-shape, long, thin, flat. Sturdy and light-weight, PACKARD containers are perfect for any dry commodity—foods, drugs, chemicals, cosmetics, toys, novelties, insecticides, electrical products, shipping, textiles.

And these low-cost containers are available *immediately!* Whether you choose metal-end or paper-cap, plain or labelled—watch your product go in a PACKARD package.

PACKARD CONTAINER CORP.
5811 Park Avenue West New York, New Jersey
Phone Union 5-5818
New York City Telephone Lo 4-2348



A NEW MIRACLE IN HEAT-SEALING

No foot control required to operate this heavy-duty, all-purpose bag heat sealer. The automatic, feather-light touch of the fingers as they place the bag in position does the trick! Like magic, the machine then folds the top of the bag and heat seals it in one swift, sure operation. Speeds up production by as much as 50%. This "Pacer" model is also available with the following exclusive features: Hole Punch, E-Z Open Seal, Date Coding, and Name Embossing attachment.

Automatic and Foot Power Heat Sealers; Rotary Heat Sealers; Hand Sealing Irons; Bag Making Machines

WRITE FOR CATALOG

HEAT SEAL-IT COMPANY
4316 LANCASTER AVE., PHILADELPHIA 4, PA.

MAKE THE MOST

OF YOUR OPEN OR CLOSED FOUNTAIN MACHINE WITH

FOR CELLOPHANE, GLASSINE, ACETATE, FOIL, PAPER

GOTHAM INK & COLOR CO.

Established in 1937

5-19 47th Avenue, Long Island City 1, N. Y.

Spice" polyethylene bottle, Plax Corp., Hartford, Conn.; hat-shaped closure molded by National Seal Corp., Brooklyn, of American Cyanamid's urea formaldehyde; atomizer and dispenser friction-fit plugs, Jules Montenier, Inc., Chicago; cartons, International Folding Box Co., North Bergen, N. J. **Coty**—*Chypre talc acetate container molded by Detroit Macoid Co., Detroit, of Tenite, made by Tennessee Eastman Corp., Kingsport, Tenn.* **Richard Hudnut**—*holly package, foil leaf, Design Right Co., New York; acetate leaf, National Transparent Plastics Co., Springfield, Mass.* **Harriett Hubbard Ayer**—*lipstick cases, Plume & Atwood Mfg. Co., New York; transparent folding carton, Troth, Bright, Page, Inc., Paoli, Pa.; laminated film, Kodapak acetate, Eastman Kodak Co., Rochester, N. Y., and vinyl, Bakelite Corp., New York; bracelets, Victor Silson, New York; wooden knife box, E. B. Estes & Sons, New York.* **Yardley**—*Travel Pac carton, Kiernan Hughes, Jersey City, N. J.* **Jean Naté**—*label, The Foxon Co., Providence, R. I.; carton, Robert Gair Co., New York; talc container, W. C. Ritchie & Co., Chicago; pouch, Prepac, Inc., New York, made of Du Pont Polythene.* **Ogilvie Sisters**—*Fifth Avenue Hair Kit box, Quartin Specialty Box Co., Inc.; acetate for cover, Vuepak, Monsanto Chemical Co., Springfield, Mass.* **Old South**—*Star Fire bottle, T. C. Wheaton Co., Chicago; carton, American Coating Mills, Inc., Elkhart, Ind.*

Frankfurt bander

A new model frankfurter-banding machine at the Stahl-Meyer plant in New York City operates at the rate of 65 per minute. The machine applies an individual band, which bears the Stahl-Meyer name, address, ingredients and other necessary copy.

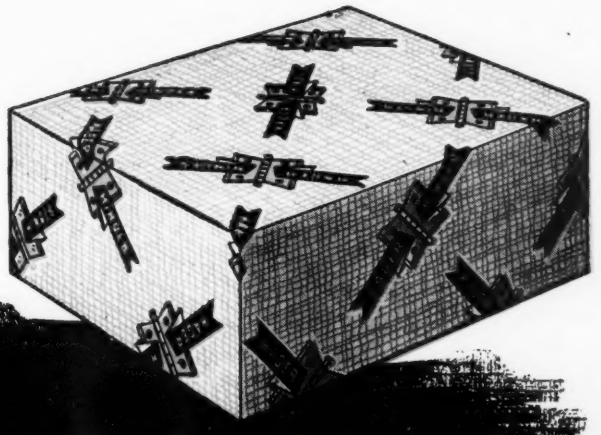
For the time being, the company is only banding two franks per pound, but may increase the use of the machine as soon as the packing room is rearranged for streamlined operation.

The banding machine is said to have sufficient versatility to be used in banding fresh pork sausage and other sausage products having approximately similar diameters. It is necessary that soft products be well chilled (hardened) for the best results. Double links may be sent through the machine without having to be cut.

Individual bands are used so that it is possible to apply each one with the identifying features in the same place each time without the obscuring that sometimes takes place in continuous roll-type bands.

CREDIT: *Bander, International Banding Machine Co., Brooklyn.*

What a difference a good package makes!



—a hardware jobber tells the value of

Gaylord Boxes

STANDARD HARDWARE CO.

WHOLESALERS IN HARDWARE • HOUSEFURNISHINGS • GENERAL MERCHANDISE

26 MARSHAL STREET PATERSON 1, N. J.

June 8, 1948

C. Hager and Sons
2451 DeKolb Street
St. Louis, Missouri

Gentlemen:

It is not often that the occasion warrants a letter of complimentary nature, but your new package certainly is worth a pat on the back for someone in your outfit.

We have had a dealer resistance on your line simply because the boxes were a flop. Now it is a pleasure to ship Hager and our customers are really satisfied with your goods.

Sincerely yours,

STANDARD HARDWARE COMPANY

Fred Neil

Fred Neil

FN/wls

From "dealer resistance . . . because the boxes were a flop"—to "our customers are really satisfied."

Never was the sales value of Gaylord Boxes better told in fewer words!

The Standard Hardware Company has summed up in two short paragraphs the real benefits of Gaylord's better materials, precision manufacturing plus Quanta Color designing.

To give your sales the added power of Gaylord packaging—call or write the nearest Gaylord office for prompt cooperation.

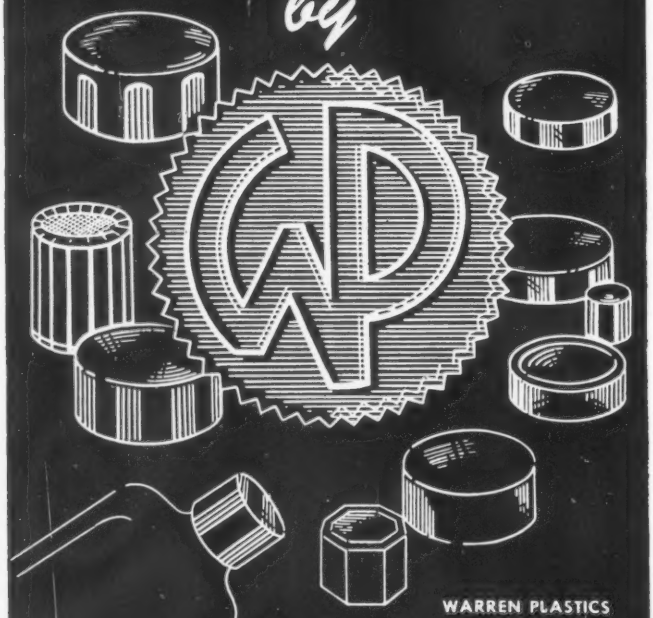
- Folding Cartons
- Corrugated and Solid Fibre Boxes
- Kraft Grocery Bags and Sacks
- Kraft Paper and Specialties

GAYLORD CONTAINER CORPORATION, General Offices: SAINT LOUIS

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle
Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit • Jacksonville
Columbus • Fort Worth • Tampa • Cincinnati • Dallas • Des Moines • Oklahoma City
Greenville • Portland • St. Louis • San Antonio • Memphis • Kansas City • Bogalusa • Milwaukee
Chattanooga • Weslaco • New Haven • Appleton • Hickory • Greensboro • Sumter • Jackson • Miami

187

Fine
PLASTIC CLOSURES
by the
MILLIONS
by



WARREN PLASTICS
makes them RIGHT!

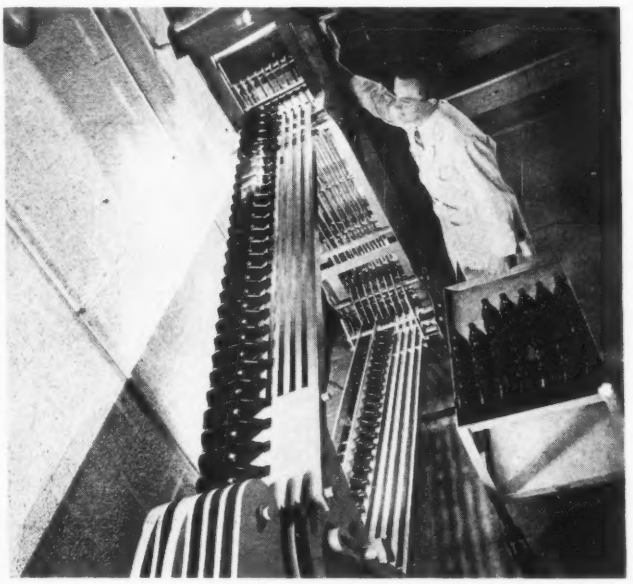
WARREN PLASTICS
gives you WHAT YOU WANT! Send your closure requirements to us today for a quotation! Your problems ALWAYS receive CAREFUL ENGINEERING ATTENTION ..... and we can ship immediately from stock all standard sizes. Write TODAY..... You'll be pleased you did!

WARREN PLASTICS CORP.
1901 IRVINE ST.
WARREN, PENNSYLVANIA

Canadian Plant: World Plastic Corp., Ltd., Hamilton, Ont.
New York Office: Jesselson Sales Company Inc., 347 Fifth Ave.

New glass research center

To make the use of glass packages more practical, economical and profitable, the Glass Container Division of Owens-Illinois Glass Co. has opened the Duraglas



Center, its new facility for customer research and market development.

According to Smith L. Rairdon, vice president and general sales manager, the glass company is introducing the Duraglas Center to the packaging industry through the distribution of a pictorial handbook which states that it is "a concentration of scientific forces seeking greater efficiency in the search for the best glass container, the best closure and the best carton, the most efficient means of using them and the most effective support of a broad market development effort for our customers."

Owens-Illinois purchased the structure as surplus property from the Reconstruction Finance Corp. through the facilities of the War Assets Administration. Rehabilitation of the building involved complete change in exterior and extensive interior alterations.

Included are services designed to assist the customer in his packaging problems and to aid him in developing his markets. He has an opportunity to have his product and its packaging pre-tested through the center's consumer and market research department.

Available also to the packer is a container design department where experts assist him in creating his package, giving it the merchandising force which makes it a salable item through modern labels, style and shape of container and efficient closure.

Besides package design, the Duraglas Center offers consultation and engineering service to packers on the processing of their products in the glass packages which take them to market. Advice is given on the handling of bottles and jars through the packer's lines for speedy, economical and efficient packaging.

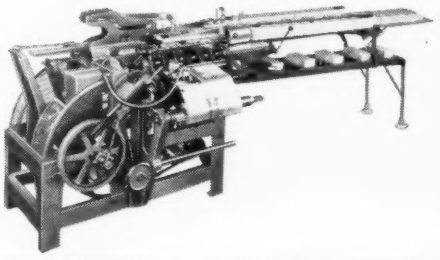
Facilities in the building designed to assist the customer are the Quality and Specifications Department

a message to PRESIDENTS

IT PAYS TO WRAP THE HAYSSEN WAY

You are interested in low cost overwrapping that adds attractiveness to your package. For more than 35 years the Hayssen Mfg. Company has produced wrapping machines which have satisfied executives in many kinds of business activity. There's a Hayssen machine to wrap the latest types of wrapping material, as well as the old stand-bys. For printed overwraps, the Hayssen Electric Eye accurately registers the printed design on each carton. Hayssen machines, too, can be hooked into automatic line conveyors, or operated independently with one operator feeding and taking off the wrapped cartons. For complete information, ask your secretary to write to the Hayssen factory. An indication of your needs will bring specific recommendations.

HAYSSEN MFG. COMPANY SHEBOYGAN, WIS.



Hayssen
ELECTRIC EYE WRAPPING MACHINES

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since 1888 we have been "helping you out" in the development and manufacture of hand made and machine made set-up boxes. Call on us . . . no obligation.

OSCAR TRUSCH COMPANY

SALES OFFICE: 366 Fifth Ave., N. Y. 1, N. Y., Tel. LO 4-3328
FACTORY: 150-25 18th Ave., Whitestone, N. Y., Tel. FL 9-2365
REPRESENTATIVES:
Los Angeles, Cal.—A. J. Luckman, 448 S. Hill St., Vandike 4200
Denver, Colo. — Mullen & Johnson, 407 Mercantile Building

GOOD ADDRESS LABELS ARE GOOD ADVERTISING

Here's how to get advertising value from the labels you put on envelopes and packages that go to customers and prospects...

Ask us to submit individualized multi-color designs . . . Take your pick . . . The design you choose, printed in 2 or 3 smart colors, will cost just slightly more than an ordinary "sticker" that can create a poor impression of your company.

We'll print your labels in roll, pad or flat form on fine paper stock backed with an excellent adhesive.

Write for samples and prices.

Miller AND Miller INC

136 MARIETTA ST. ATLANTA, GA.

4006 PACIFIC AVE. TACOMA, WASH.

DO YOUR CUSTOMERS RECEIVE YOUR PRODUCTS "FACTORY-FRESH"?

Experience proves that Desiccite* guards your finished products from the damaging effects of moisture by removing water vapor from the inside of your shipping or storage containers.

Filtrol engineers will be glad to consult with you on the economical protection of your products against the deteriorating effects of moisture. Write today for full information.

FILTROL *Corporation*

GENERAL OFFICES:

634 S. Spring St., Los Angeles 14, California

PLANTS:

Vernon, California and Jackson, Mississippi

*Reg. U. S. Pat. Off.

3 WAYS TO GET CELLOPHANE BAGS QUICKLY and CHEAPLY

① USE THE "CHIEFTAIN" BAG MACHINE

The versatile "Chieftain" makes flat and square bags of cellophane, pliofilm or foil at speeds to 10,000 per hour! Needs no skilled operator. Has center seam gluing and duplex bag making attachment.

② ORDER BAGS DIRECT FROM US

Printed and plain—also sheetwraps, continuous rolls. Complete design and technical service available. Strategic West Coast location insures quick deliveries.

③ COMBINATION ARRANGEMENT

This way combines certain advantages of methods 1 and 2. We'll describe it fully at your request.

WHICH WAY IS BEST FOR YOU?

Write now for detailed analysis of their relative value for your specific operations.

MODERN CONTAINERS INC.

3220 E. OLYMPIC BLVD.
LOS ANGELES 23, CALIF.

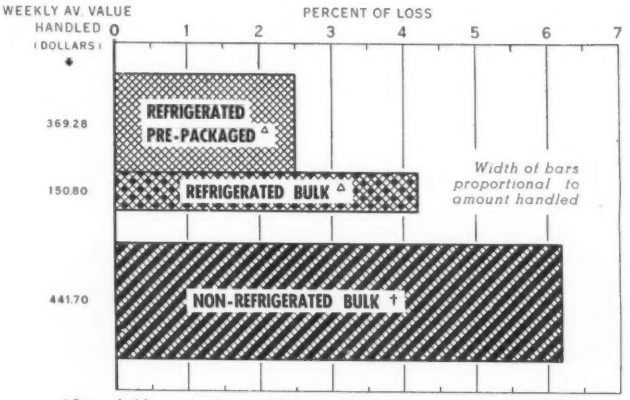
Represented throughout the WEST by BLAKE, MOFFITT & TOWNE with offices in all principal cities.

which includes glass container and shipping case quality research laboratories; Packaging Research Department which takes in customer package design, closures, processing, product consultation and engineering; bottle design development; plastics engineering; metal closure engineering; consumer and market research, advertising, publicity, and merchandising.

The company points to the success it has had in developing the shorter ketchup bottle, the modern extract bottle, the glass syrup container, the Ultra-Vac coffee jar, the Handi-Square milk bottle and currently the "one-way" glass beer bottle.

These advances in modern packaging were the result of scientific research coupled with pre-testing the consumer market, Mr. Rairdon said. Company officials expect that the Duraglas Center will enable it to continue the progress which it has made in the past in the development of glass packaging.

A correction



*Concealed loss — produce unsalable at time of store arrival — is not included. Items included are apples, apricots, green beans, lima beans, wax beans, broccoli, carrots, grapes, lemons, lettuce, limes, parsley, peaches, pears, peas, peppers, plums, and Italian prunes.

△ Average of 10 weeks in 2 self-service food stores.

† Average of 9 weeks in 4 self-service food stores.

The chart above, which is here reproduced correctly, was incorrectly labeled when it appeared in the article "Pre-Packaging Conclusions" in the July issue (p. 105), the large bottom bar having been erroneously identified as representing "non-refrigerated pre-packaged." This error, of course, placed a very wrong interpretation on the results of Donald R. Stokes' valuable research and MODERN PACKAGING is glad to set the record straight. To readers who are preserving this article for reference, it is suggested that the corrected chart be clipped and pasted over the incorrect version. In reprints which will later be available through Mr. Stokes at the Department of Agriculture, the correction has been made.

The chart shows average waste and spoilage of 18 fresh fruits and vegetables retailed under various conditions in Northern New Jersey self-service stores from June to Nov., 1946. The chart indicates that loss on refrigerated packaged produce was only 2.5%, as against 4.2% for refrigerated bulk and 6.2% for non-refrigerated bulk.

ARE THESE STATEMENTS TRUE OR FALSE?

1. The preferred container for baby foods is glass.

☐ TRUE ☐ FALSE

ANSWER:

Of the total 1947 baby food pack, 62% was in glass. And even this high total has not yet caught up with the consumer preference for glass. (True is right.)

2. Women buy about 45% of their processed foods on impulse.

☐ TRUE ☐ FALSE

ANSWER:

When a woman can see what is offered for sale, she's more likely to *buy*. Displays of processed foods in transparent Duraglas jars can help boost your impulse sales even higher than the 45.5% average reported for supermarkets by market research. (True is right.)

3. A good food package has but *one* function.

☐ TRUE ☐ FALSE

ANSWER:

Sales research reports the best packages do 3 things well: protect contents; are efficient as merchandising tools; are functional in the home and for re-storage. Duraglas jars win on all 3 functions! (False is right.)

4. Duraglas container advertisements like this appear 500 million times in national consumer publications this year.

☐ TRUE ☐ FALSE

ANSWER:

We've been telling your customers the advantages of glass containers for nine consecutive years through such popular publications as SATURDAY EVENING POST, LADIES' HOME JOURNAL, GOOD HOUSEKEEPING, McCALL'S, PARENTS', SUNSET and THE AMERICAN WEEKLY. Total reader impressions this year: *½ billion!* (True is right.)

SCORING

Three or four right—You *know* glass-packing is profit-packing!

Two right—There's even more profit-potential waiting for you in glass!

One or none right—Open the door to profit-land *now* by investigating the greater sales opportunities glass-packing brings to your product!

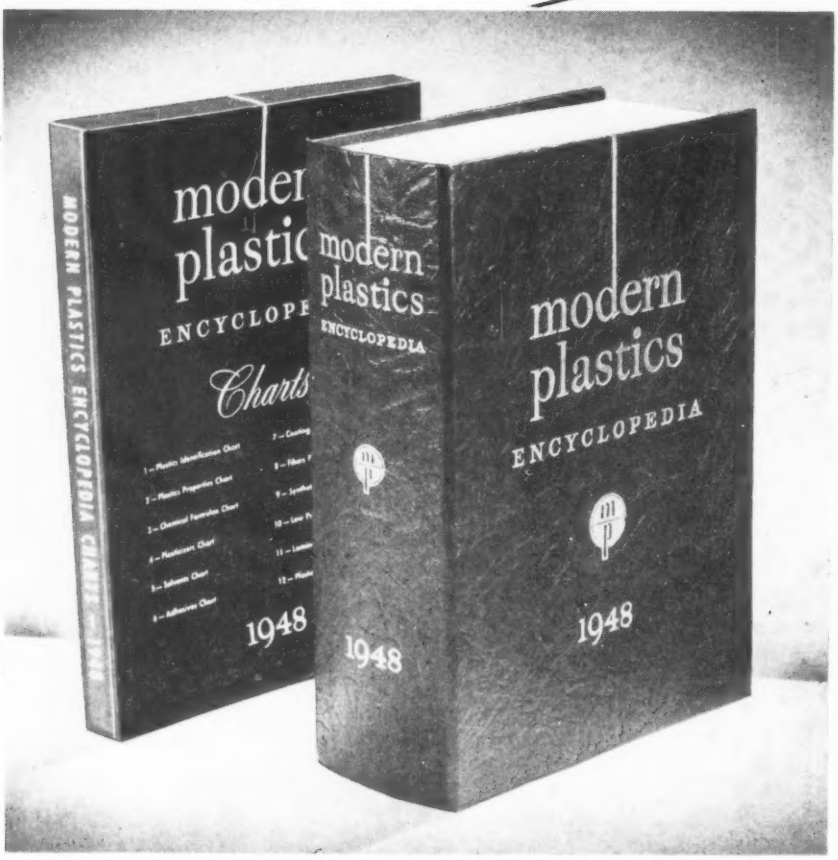
Duraglas
TRADE MARK REG. U.S. PAT. OFF.

CONTAINERS SELL ON SIGHT

OWENS-ILLINOIS GLASS COMPANY

Toledo 1, Ohio • Branches in Principal Cities

HOW TO SELECT THE RIGHT PLASTIC for *Displays*



The new 1948 MODERN PLASTICS ENCYCLOPEDIA is a complete "How To" Book which illustrates how to select material best suited for certain specific applications, complete information on how to saw, polish, bend, drill, tap, ream, or carve plastic. It explains the tools that should be used, machine speeds, type of cutting tools, how they should be ground, and the speeds at which tools must travel. The 1948 Modern Plastics Encyclopedia describes in detail the type of cut off saws needed, teeth per inch required, tooth set, types of blades and lineal speed per minute that saws should run.

There is comprehensive information on good and poor design of plastic products and you get ideas from this book covering all types of plastic signs and displays.

Order your copy of the new 1948 MODERN PLASTICS ENCYCLOPEDIA now—only $8.50 prepaid, including for the first time the Catalog of Plastic Stock Molds which formerly sold for $5. This section illustrates over 2,000 plastics items for which stock molds are already in existence.

* *Trademark Registered.*

MODERN PLASTICS ENCYCLOPEDIA
A Breskin Publication
122 East 42nd Street New York 17, N. Y.

How bags of fresh spinach are closed with the ACME-CHAMPION STITCHER

Sam J. Regas and Sons of California, are making a name for themselves these days in the pre-packaged fresh vegetable field. And an outstanding feature of their efficient packaging of fresh spinach, salad mix and cauliflower is their use of the Acme-Champion Single Head Stitcher.

In one fast-moving operation, girls on the Regas assembly line close and stitch label tabs on the top of the cellophane bags at the same time. Neat and rapid closure is a number 1 requirement as a large percentage of the Regas pack moves out by air for sale in markets the next day.

The Acme-Champion Single Head stitcher is solving closure problems for many companies who distribute their products in attractive "see through" bags. Users particularly like these features:

It is portable—can be easily carried from one location to another.

It is electrically operated by foot switch solenoid.

Throat length—a roomy 13½ inches.

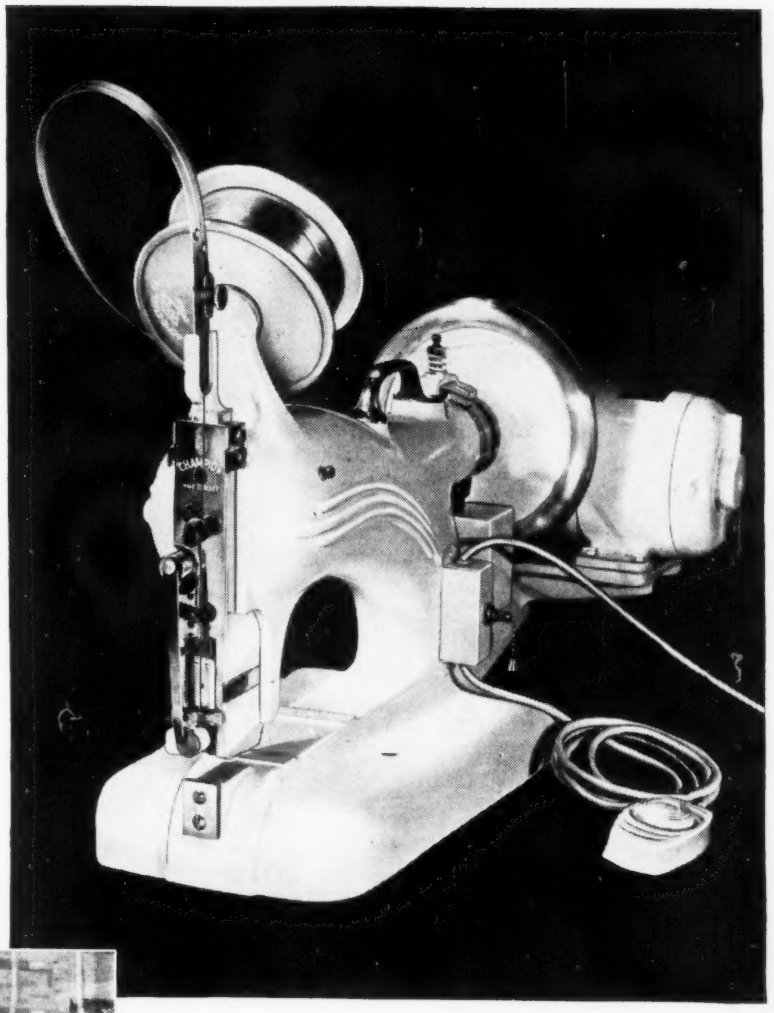
Has movable clinchers—for a flat stitch. Geared head motor.

Why not find out how this versatile stitcher can do a job for you. Send the coupon for full details today!

STITCHING WIRE DIVISION

ACME STEEL COMPANY

NEW YORK 17 ATLANTA CHICAGO 8 LOS ANGELES 11



Closing and label tabbing bags of fresh spinach in the S. J. Regas plant with an Acme-Champion Single Head Stitcher.

ACME STEEL COMPANY, Dept. MP-98
2838 Archer Avenue, Chicago 8, Illinois

Please send me more information on Acme-Champion Stitchers for specialty bag stitching.

Name.....

Company.....

Address.....

City..... Zone..... State.....

The High Speed

ROTO BAG MACHINE

MAKES EXTRA STRONG BAGS

WITH DOUBLE SEALED SEAMS

WHEN PRODUCTS are packed in ROTO-made bags they get maximum protection because the ROTO Bag Machine double-seals every bag seam—once with heat, once with high-strength adhesive. This special seam construction safeguards against the costly dangers of moisture spoilage, product loss through sifting, and bag failure due to split seams.

The ROTO makes these extra-strength bags of almost any heat-sealable material: cellophane, diaphane, aluminum foil and laminated films. Moreover, it can make them in any of four basic types: flat, gusset, single-wall or duplex.

Built for heavy-duty, trouble-free performance, the ROTO has the simplicity of operation desired by packers at speeds of interest to converters. Because it is constructed with precision craftsmanship of the finest materials obtainable, the ROTO Bag Machine is unconditionally guaranteed for performance and each of its parts is warranted against defect.

Write for detailed information, prices and delivery dates.

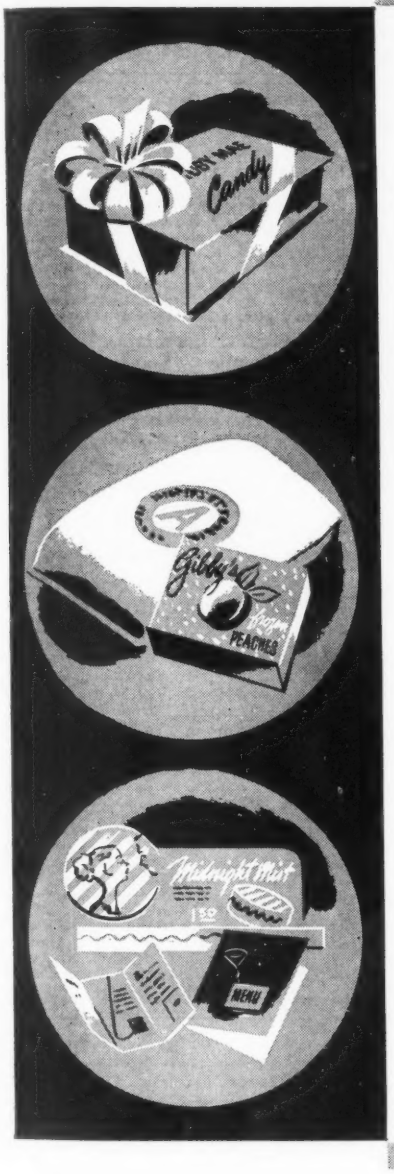
ATTENTION, WEST COAST PACKAGERS!

An operating display of the ROTO BAG Machine and complete sales and service facilities are now located on the West Coast. REPRESENTATIVE: R. M. DUBIN CORP., 2500 South San Pedro St., Los Angeles 11, Calif.

ROTO BAG MACHINE CORP.

310 EAST 22nd STREET NEW YORK 10, N. Y.

PACK IT... PROTECT IT... SELL IT with TROJAN!



Trojan FOIL

For the Ultimate in Packaging Appeal

Trojan Foil has the sparkling, high-quality eye-appeal that gives any package more interest, more color, more *sell!* Trojan Foils, laminated to paper, board or cloth, are available in a range of attractive colors for many different packaging uses.

Trojan LAMINATED SPECIALTIES

For the Best in Protective Wrappings

Trojan pliofilm, cellophane and other protective laminations and Trojan special heat seal, grease-proof protective coatings guarantee moisture-free, dust-proof protection for packaged goods. Trojan protective papers are widely used and approved by the packaging industry, converters and processors and frozen food packers.

Trojan FOIL LABEL AND MOUNTED PAPERS

For Eye-Catching Sales Messages

Trojan Foil Label Papers and Trojan Foil Mounted Materials are specially made for the graphic arts industry. These colorful, decorative papers are effectively used for direct-mail pieces, financial reports and many other distinctive printing applications.

For more information and samples of Trojan Foil and Laminated Papers, write Dept. 29 today!

Trojan Foil ®

THE GUMMED PRODUCTS COMPANY

OFFICES • **TROY, OHIO** • MILLS

Chicago • Cincinnati • Cleveland • Los Angeles • New York • Philadelphia • St. Louis

All classified advertisements payable in advance of publication. Rates: $5.00 up to sixty words; enclosed in border, $10.00 per inch.

Classified Advertisements

Publication reserves the right to accept, reject or censor a classified copy.

WANTED: MECHANICAL engineer with wide experience in wrapping and packaging machine design. Permanent position with old established firm located in attractive residential community. Box 695, Modern Packaging.

WANTED SALESMEN—Packaging salesmen now selling allied lines to sell Weinman Transparent Plastic Boxes, Cans, Counter Dispensers. (See Display Adv. this issue) Commission Basis. Mention experience, territory covered and lines now selling. Weinman Bros., Inc. (Est. 1919) 325 N. Wells St., Chicago 10, Ill.

WANTED MANUFACTURERS' agents throughout the U. S. who are now selling packaging and filling equipment. We manufacture a competitive line of automatic and semi-automatic liquid bottle fillers. We pay best deal in industry. In replying give territory you cover, lines now handling, number of men in your Organization, and length of time in business. Schaffner Industries, Schaffner Bldg., Pittsburgh 2, Penna.

ATTENTION AMERICAN manufacturers desiring Canadian representation from coast to coast on the following: packaging ribbons, papers and all packaging equipment; Christmas items of all sorts, printed cellophane bands, and staples and staple machines. Our many years of experience in this field guarantees you a full coverage of your products. Peacock Packaging Co., 567 Querbes Avenue, Montreal 8, Quebec.

ARTIST—Package and Label Designer available. Currently associated with large National Organization undergoing complete redesigning program. Thoroughly experienced in all aspects necessary in developing top-notch designs and follow-through needed for coming buyer's market. Seeks GOOD position with BETTER present and BEST future. A letter to Box 724, c/o Modern Packaging, will bring full resume of background and references.

SALESMEN CORRUGATED box: We have a few more openings for salesmen with corrugated box experience. Qualified persons interested in making application for these positions should send detailed resume to: F. M. BRAZIER, UNION BAG & PAPER CORP., 233 BROADWAY, NEW YORK 7, N. Y.

POSITION WANTED: By man with a number of years experience in the servicing of automatic food packaging equipment in paper, tin cans and glass throughout the U. S. Also production and foreman experience and a graduate of Alexander Hamilton Institute. Box 725, Modern Packaging.

"ONCE IN A LIFETIME" opportunity: Wanted—Manager Specialty Bag Business. Leading Paper Converter just entering Specialty Bag Field. Applicants must have successful record in manufacturing and marketing of Waxed, Laminated, Dry Glassine and other Specialty Bags—Printed and Plain. Applicants must have record of long employment and able to furnish best references. Will consider those with outstanding record in either manufacturing or sales but prefer man with broad experience in both, fully competent to take complete charge. All replies held strictly confidential. Box 723, Modern Packaging.

PAPER BOX Production manager—15 years' experience—desires connection with reputable manufacturer machine, hand made set-up boxes. Assume full responsibility. Relieve busy owner of manufacturing details. Purchasing, estimating, designing, manufacturing sequence. Thoroughly understands cosmetic, perfume, jewelry, candy, cutlery and sundry boxes made of cardboard, acetate and wood. Highest references. Salary $8500.00. Will locate anywhere. Box 734, Modern Packaging.

TRAFFIC MANAGER available: over 12 years extensive experience in warehousing and distribution of various commodities; well trained in all phases of rail, truck, water and air transportation; able set-up department; good business and commercial background with proven ability to work on large scale operations; would like to make change, preferably with small rapidly growing concern; will mail chronological resume. Box 735 Modern Packaging.

DIEMAKER—Thoroughly experienced on high grade folding carton dies. Must be first class man, accurate and dependable. Apply: Alford Cartons, Industrial Avenue, Ridgefield Park, New Jersey.

PRESSMEN & FEEDERS—Printing and cutting. Experienced on Miehle cylinder presses. Only first class men need apply. Alford cartons, Industrial avenue, Ridgefield Park, New Jersey.

WANTED: WRAPADE or Shumann Bag Maker. Any condition. Address Krispy Kernels, Inc., 175 Clinton Place, Newark 8, N. J.

WANTED: MECHANICAL Design Engineer. Experience in designing and development of automatic packaging machinery or similar equipment, preferably graduate engineer. Work includes designing, layout, and drafting. Excellent opportunities. Give complete details in first letter including education, experience, references and expected salary Enclose recent photo. Box 727, Modern Packaging.

FOR SALE: Complete paper plate converting equipment—1 Color Harris Litho Press, 1 Miehle Die Cutter with dies, 1 Hudson Sharp three 8" Forming Machine, 1 Peerless two 6" Forming Machine, 1 Plate Dampening Machine, 24 Printing Plates for 8" designs, 11 Printing Plates for 6" designs. Exporters take notice! All equipment in A-1 condition and in operation at the present time; subject to prior sale; prices FOB location; machines will be skidded for domestic shipment—no crates will be supplied; $20,000 complete. For further information write Box 728, Modern Packaging.

WANTED—PACKAGE Machinery Co. Wrappers. Can use any of the following—FA, FA2, FAQ. Please state age, condition and lowest cash price. Box 729, Modern Packaging.

IF IT'S MACHINERY, we have it available for immediate delivery at great reductions—Pneumatic Scale Co. Automatic Cartoning Unit consisting of Automatic Carton Feeder, Bottom Sealer, Rotary Filling Machine, Top Sealer and Interconnecting Conveyors. Standard Knapp -429 and Ferguson Packomatic Carton Sealing Machines. Pneumatic Scale Co. Straightline Bottle Labeling Machine, labels front and back. New Jersey Labelrite Semi-Automatic Labeling Machine and Burt Labeler. Stokes & Smith Model G-1 and Automatic Duplex Powder Filling Machines. Bagby Twin Piston Filling Machines. Horix SS and Karl Kiefer Rotary Visco Filling Machine. We have everything in packaging and filling equipment. Write or wire collect for prices and details. Union Standard Eequipment Co., 318-322 Lafayette Street, New York 12, N. Y.

FOR SALE—Package Machinery Model-FA Wrapper. Box 730, Modern Packaging.

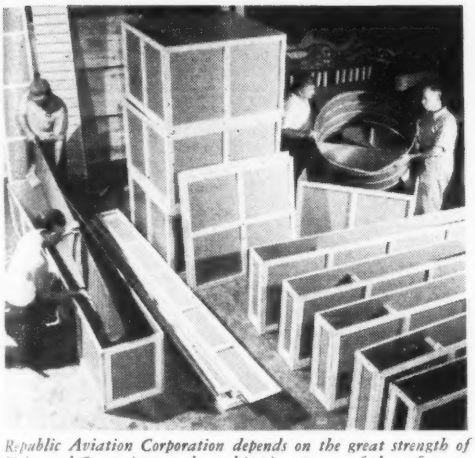
FOR SALE—Stainless Steel Belt Casting Machine. Box 731, Modern Packaging.

FOR SALE: One "NASCO" #24 Bag Making Machine. High Speed. Sizes 2½" x 4" up to 9" x 16". Single and duplex. Brand new. One 54" Moore and White Paper Sheeter. One 36" Denney Slitter. One 29" Moore and White Embossing Machine. Two 30" Waldron Embossing Machines. One Bag Making Machine for large heat sealed bags. Box 726, Modern Packaging.

WANTED: Lithography connection by well established Southern selling organization with five men handling Fla., Ga., Ala., S. C., N. C. and East Tenn. Particularly interested in fine folding boxes, wrappers, labels, bag closures, etc. used chiefly in food and textile fields. Must be well rated established firm. References furnished on request. Reply Box 732 Modern Packaging.

HAVE YOU a new machine ready for promotion and sale? Contacts and "know how" gained through 20 years' experience would produce results. Have own office in N. Y. City. Highest references. Box 733 Modern Packaging.

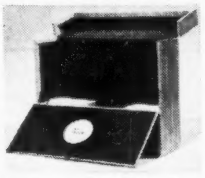
EXPERIENCED SALESMAN wanted for commercial and beverage glassware. To be located in Mid-Eastern Territory for firm well established in the field. List qualifications and address application to Box 736, Modern Packaging.



Republic Aviation Corporation depends on the great strength of Tekwood Containers when shipping parts of their famous "Thunderjet" fighter planes.

From THUNDERJETS to TOILETRIES

TEKWOOD solves your packaging problems



McKesson and Robbins choose Tekwood as the perfect container material for their exclusive Tawn Toiletries.

What's your toughest packaging problem? Great strength and ease of assembly for heavy-duty industrial containers? Light weight that's ideal for shipping by air, or smart good looks for small consumer packages?

One of These Three Tekwood Products is Tailor Made For You

Standard Tekwood is ⅛" thick. The core is a sturdy hardwood. To each side is resin-bonded a tough sheet of Cylinder Kraft paper. The grain of the Kraft goes at right angles to the grain of the wood. Flexible as leather when bent along the wood grain, Tekwood is ruggedly rigid when supported along its lateral edges!

The Special Package Grade of Tekwood is .080" thick and faced with a special tough liner paper. It has a very high wet strength and is water repellent. Its light weight, great strength, and good looks make it supreme in its field.

Protekwood is 5/32" thick. Made with asphalt-impregnated paper faces, it is specially recommended where the package or container must be highly water resistant and impervious to vermin.

Write us today for full information on the grade of Tekwood that answers *your* particular packaging problem.

Here's Proof of Tekwood Toughness

Puncture Test Data

MATERIAL	General Electric-Beach Puncture Test (Inch-Ounces per Inch of Tear)
Packaging grade Tekwood, .080" thick	630
Standard Tekwood, ⅛" thick	979
Protekwood, 5/32" thick	930
Birch Plywood, 3/30" thick	800
Gum Plywood, ⅛" thick	600
Gum Plywood, 3/16" thick	875
Cottonwood Plywood, 3/20" thick	820

(Above tests made by Container Laboratories, Inc., New York City)

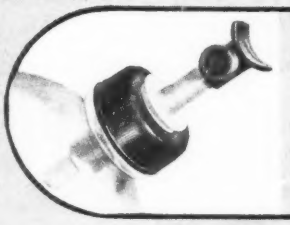
UNITED STATES PLYWOOD CORPORATION

55 WEST 44th STREET, NEW YORK 18, N. Y.

Manufacturers of Tekwood and Weldwood Plywood

Tekwood is a patented product – U. S. Pat. No. 1997344

AGAIN from CALMAR...2 new liquid dispensers

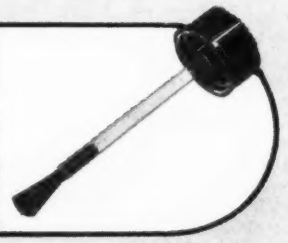


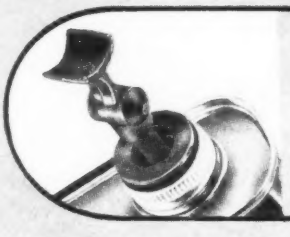
SPRAYER*

Low cost is feature of this non-corrosive, colorful, all-plastic sprayer. Possesses high visual appeal, strong re-use value. For use with practically any sprayable or dispensable liquid product: glass cleaner, disinfectant, deodorant, medicament, cosmetic, liquid food or flavor. Available with 22, 24, 28, 30, 33 mm. metal or molded plastic caps for bottles and cans.

BRUSH APPLICATOR

Perfect for applying nail polish, plastic cement, plastic dyes, adhesives, paints, lacquers and countless other products. Glass rod eliminates corrosion. Hair permanently secured — will not come out. New, inexpensive.





INSECTICIDE AND DEODORANT SPRAYER

For home, hospital and industrial use, where large volume of fine mist is desirable. All plastic, non-corrosive. Made to fit any size bottle or can. New, efficient, durable, inexpensive.

Your inquiry will draw prompt and detailed information about these and other new sales stimulants for your liquid products.

***Reg. U.S. Pat. Off.**

Calmar Company

DESIGNERS and MANUFACTURERS OF FUNCTIONAL CLOSURES FOR THE PACKAGING INDUSTRY

6800 McKINLEY AVENUE, LOS ANGELES 1, CALIFORNIA

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Cheese sells faster!
freshness lasts longer...
in PARAKOTE wrappers and pouches
Display your product in PARAKOTE, the first completely transparent wrappers and pouches for process cheese. Protect the freshness of your product in transparent, heat-sealing, moisture-proof PARAKOTE. See your Marathon representative or write direct. Marathon Corporation, Menasha, Wisconsin.
MARATHON
PROTECTED BY MARATHON
FAIRMONT
MEMO
These two recent ads are part of a series directed to the dairy industry. They point out the features of PARAKOTE, the first completely transparent wrapper for process cheese. PARAKOTE is another outstanding Marathon contribution to food packaging.
display the cheese!
protect its freshness...
with PARAKOTE
wrappers and pouches
PARAKOTE is the first completely transparent wrapper for process cheese. PARAKOTE is designed for machine and hand-sealing operations. It is transparent, heat-sealing and moisture-proof. See your Marathon representative or write direct. Marathon Corporation, Menasha, Wis.
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Modern packaging

A BRESKIN PUBLICATION

Published by Modern Packaging Corp.
122 East 42nd Street, New York 17, N. Y.

THE SCHULTZ ROLL WIZARD

. . . FOR AUTOMATIC REWINDING AND WRAPPING

The SCHULTZ ROLL WIZARD is one of a complete line of *fully* automatic rewinding and wrapping equipment, employing constantly moving high speed webs for producing accurately measured rolls. They are the only machines of this type in the world.

THE SCHULTZ ROLL WIZARD HANDLES COATED, CELLOPHANES, FOILS

and many other materials such as lacquered and waxed papers with equal ease.

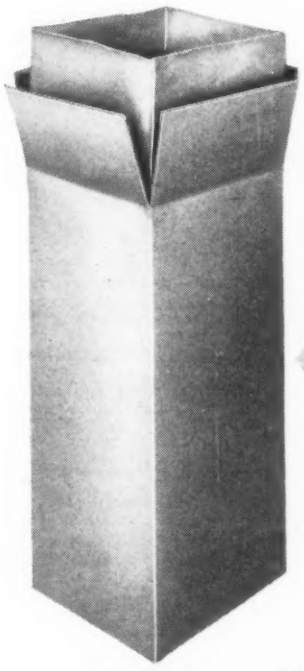
It rewinds and wraps on cores, then overall wraps in printed paper and cellophane wrapper, tucking in overhanging ends. This machine is a high-production type, *delivering completely rewound and packaged rolls . . . ENTIRELY AUTOMATICALLY.*

Send for details and production figures now.

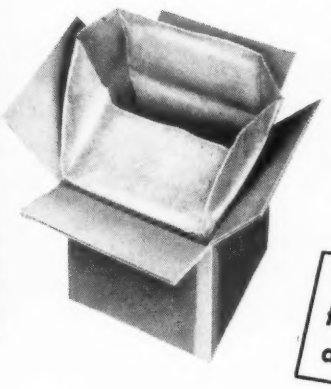
Automatic equipment for rewinding tissues, foil, plastics, protectoid, pliofilm, cellophane, waxed, embossed and coated papers, laminated webs and heavy board. Multiple web rewinding, slitting, and perforating.

SCHULTZ ENGINEERING CORPORATION
6-12 STANWIX STREET • BROOKLYN 6, N. Y.

JIFFY INSULATED BOXES
FOR LCL SHIPMENTS OF ALL FROZEN PERISHABLES



JIFFY INSULATED BOXES are the most practical answer to the problem of packaging protection for LCL shipment for all frozen or chilled perishables.



The lack of mechanical or wet ice refrigeration offers no barrier to the shipment of frozen or chilled products in a Jiffy Insulated Box, particularly when refrigerated with dry ice. Refrigerated with dry ice they become portable refrigerators with the element of refrigerated time determined only by the quantity of dry ice. This time of protection may be extended to seventy-two hours or more.

Write today for prices and samples.

SPECIFY TYPE OF PRODUCT TO BE PROTECTED

Jiffy MANUFACTURING CO.
360 FLORENCE AVENUE • HILLSIDE, NEW JERSEY

JIFFY INSULATED BOXES
Insulating-Waterproof-Shock Absorbent

Also used for shipping carbonated beverages, wines, bottle goods, pharmaceuticals, biologicals and such fragile objects as Christmas tree ornaments. There is no shipping container more flexible in use and efficiency of protection than a JIFFY INSULATED BOX.

Box fabricated by the Plastics Service Company, 1725 S. Broadway, Los Angeles, Calif., and Stack Plastics, 2105 Colorado Ave., Santa Monica, Calif. Master Builders set molded of Monsanto Lustron by Mercury Plastics Inc., 1740 Berkeley St., Santa Monica, Calif., for Master Builders, 1750 Berkeley St., Santa Monica, Calif.

let the EYES have it

in

VUEPAK

When a toy seller shows this Master Builders set . . . a boy's nose comes up against a show window. There's a look, an impulse and a sale. He buys it when he *sees* it in clear, rigid, transparent Vuepak.

Like the toy seller, you, too, can bring your product out in the open . . . and open more pocketbooks . . . when you "let the eyes have it" in containers of full-view Vuepak. *Actual tests show that merchandise in Vuepak outsells competition by as much as six to one.*

This Monsanto cellulose acetate sheeting comes in varied gauges which can be shaped and decorated as you specify to protect and show your merchandise to best advantage. See your package fabricator, or send the convenient coupon for full information on Vuepak and Monsanto's merchandising program for its customers. Vuepak: Reg. U. S. Pat. Off.

MONSANTO

CHEMICALS ··· PLASTICS

MONSANTO CHEMICAL COMPANY, PLASTICS DIVISION
Dept. No. MPKP 9, Springfield 2, Mass.

Please send me information on Monsanto's Vuepak for packaging.

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Firm _____

Address _____

City _____ State _____

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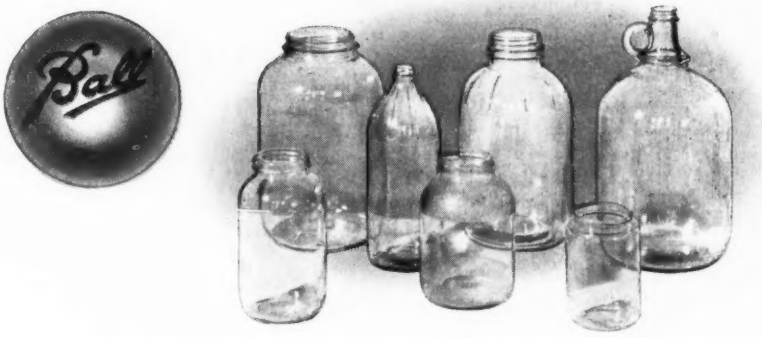
Inspiration

FOR A PACKER

Your glass-packed foods will give inspiration to another important packer — the one who packs lunches for school children, for husbands who carry their lunch to work. for family picnics, and meals in a hurry.

The appetizing appearance of foods packed in glass is the surest means of getting them consumed and your product reordered.

BALL glass containers protect and sell your product better.



BALL BROTHERS COMPANY *General Offices* **Muncie, Indiana, U.S.A.**

easy to buy – easy to serve –

because they're

PRE-PACKAGED

ONE POUND NET WEIGHT
PRICE
ARMOUR
STAR
Frankfurters
INGREDIENTS: BEEF, PORK, WATER, SALT, REFINED CORN SUGAR, SPICES, FLAVORINGS, SUGAR, SODIUM NITRITE AND SODIUM NITRATE.
PACKED BY ARMOUR AND COMPANY - GENERAL OFFICE, CHICAGO, ILL.
PACKED BY ARMOUR AND COMPANY - GENERAL OFFICE CHICAGO, ILL.

Label design by Raymond Loewy Associates, New York

In step with modern merchandising trends, Armour right-from-the-kitchen Star Frankfurters are now easier to sell and easier to buy . . . in this handy Cellophane package. For here is a package that not only keeps the product fresh and clean, but eliminates handling and weighing at the counter. With brand identity clearly displayed and mouth-watering goodness of the product completely visible, Armour Star Frankfurters now take their place in self-serve refrigerators . . . as easy to buy as a loaf of bread.

*T.M. Reg. U.S. Pat. Off

Sales Offices in Chicago, New York, Cincinnati, Denver, Detroit, Kansas City, Minneapolis, San Antonio, Atlanta, Baltimore, Boston, Philadelphia, Pittsburgh, Los Angeles, Salt Lake City, San Francisco, Seattle.

SHELLMAR

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MEXICO CITY, MEXICO • MEDELLIN, COLOMBIA

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